Workplace Health & Safety Manual

INCORPORATING A
WHS GUIDELINES & POLICIES

VERSION V1 DATED 01.01.2019

INSERT CHURCH NAME:

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1. COPYRIGHT:

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Contact information

Safe Work Australia
Phone: 1300 551 832
Email: info@swa.gov.au
Website: safeworkaustralia.gov.au

Modules prefaced with # are largely the work of Safe Work Australia.

2. DISCLAIMER:

3. INTRODUCTION:

Welfare Health and Safety [WHS], previous referred to as Occupation Health and Safety [OHS], regulations are specially designed to address three key areas of the workplace.

- **Welfare** – to look after the well-being of people under your care or authority:
- **Health** - the condition of being sound in body, mind, or spirit.
- **Safety** - the state of being safe; freedom from the occurrence or risk of injury, danger, or loss.

WHS focuses on the following key areas of the workplace:

- **Risk** – elimination of physical risks.
- **Practices** – adoption of workplace practices conducive to the good health and welfare of Workers.
- **Rehabilitation** – program to rehabilitate Workers.
- **Training** – ensuring all relevant people are trained in all aspects of WHS and aware of their responsibilities.
- **Recording & Reporting** – all aspects of WHS are recorded and reported to the leadership of the Church.
- **Review** – the periodic review of all aspects to WHS with the view of seeking improvements.

4. WHS BACKGROUND:

In 2011, Safe Work Australia developed a single set of WHS laws to be implemented across Australia. These are known as 'model' laws. For the model WHS laws to become legally binding, the Commonwealth, states and territories must separately implement them as their own laws.

Safe Work Australia is responsible for maintaining the model WHS laws, but does not regulate or enforce them.

The model WHS laws include:

- the model WHS Act
- the model WHS Regulations
- model Codes of Practice.

These elements are supported by the National compliance and enforcement policy, which sets out principles of how WHS regulators monitor and enforce compliance with their jurisdictions' WHS laws.

WHS regulators in the Commonwealth and in each state and territory are responsible for regulating and enforcing the laws in their jurisdictions. The model WHS laws were implemented in the Commonwealth, Australian Capital Territory, New South Wales, Northern Territory and Queensland on the 01.01.2012 and South Australia and Tasmania on the 01.01.2013. WA uses its own model but has approval systems in place to use the new harmonised model and Victoria continues to use its own model rules.

Some jurisdictions have made minor variations to make sure the legislation is consistent with their relevant drafting protocols and other laws and processes.

For information on the operation of WHS laws in your jurisdiction, please see the laws in your state or contact your WHS regulator.

4.1 Model WHS Act:

The model WHS Act forms the basis of the WHS Acts that have been implemented in most jurisdictions across Australia.

The main object of the Act is to provide for a balanced and nationally consistent framework to secure the health and safety of Workers and workplaces. It does this by:

- Protecting Workers and other persons from harm by requiring duty holders to eliminate or minimise risk
- Providing for fair and effective representation, consultation and cooperation
- Encouraging unions and employer organisations to take a constructive role in promoting improvements in WHS Practices
- Promoting the provision of advice, information, education and training for WHS
- Securing compliance with the Act through effective and appropriate compliance and enforcement measures
- Ensuring appropriate scrutiny and review of actions taken by persons with powers or functions under the Act
- Providing a framework for continuous improvement

- Maintaining and strengthening national harmonisation of WHS laws and facilitating a consistent national approach to WHS.

We have published some additional documents that complement the model WHS Act:

4.2 Explanatory Memorandum:

- The Explanatory Memorandum to the model WHS Act explains how the Act operates.

4.3 Guide to the Model WHS Act:

- The Guide to the model WHS Act provides an overview of the Act and will help you understand health and safety duties at work.

4.4 Interpretive Guidelines:

The interpretive guidelines are a formal statement on how WHS regulators believe key concepts in the model WHS Act operate, and indicate how the laws will be enforced. We have published four interpretive guidelines:

- The meaning of 'person conducting a business or undertaking'
- The health and safety duty of an officer under section 27
- The meaning of 'reasonably practicable'
- Discriminatory, coercive or misleading conduct

4.5 Model WHS Regulations:

The model WHS Regulations set out detailed requirements to support the duties in the model WHS Act. They also prescribe procedural or administrative requirements to support the model WHS Act (for example requiring licences for specific activities and keeping records).

We have published some additional documents that complement the model WHS Regulations.

4.6 Explanatory Statement to the Model WHS Regulations:

The Explanatory Statement to the model WHS Regulations explains how the model WHS Regulations operate.

4.7 Guide to the Model WHS Regulations:

The Guide to the model WHS Regulations provides a broad overview of the model WHS Regulations.

4.8 Model Codes of Practice:

Model Codes of Practice are practical guides to achieving the standards of health and safety required under the model WHS Act and Regulations.

To have legal effect in a jurisdiction, a model Code of Practice must be approved as a code of practice there. To determine if a model Code of Practice has been approved in a particular jurisdiction, check with your local WHS regulator.

An approved code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in a jurisdiction's WHS Act and Regulations.

Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks that may arise. Health and safety duties require you to consider all risks associated with work, not only those risks that regulations and codes of practice exist for.

While approved codes of practice are not law, they are admissible in court proceedings. Courts may regard an approved

code of practice as evidence of what is known about a hazard, risk or control and may rely on the relevant code to determine what is reasonably practicable in the circumstances.

4.9 Review of the Model WHS Laws:

Ministers responsible for WHS have agreed to review the model WHS laws in 2018. The review of the model WHS laws is currently underway.

4.10 National Compliance and Enforcement Policy:

WHS Ministers have agreed to the National compliance and enforcement policy to support the model WHS laws by ensuring a nationally consistent approach to compliance and enforcement.

The policy sets out the aims of compliance and enforcement as well as the principles underpinning the approach WHS regulators will take to monitoring and enforcing compliance with WHS laws.

The National compliance and enforcement policy was endorsed by our Members on 29 July 2011 and by the Workplace Relations Ministers' Council on 10 August 2011.

4.11 Harmonising WHS Laws:

Harmonisation of WHS laws was part of the Council of Australian Governments' (COAG) National Reform Agenda that aimed to reduce regulatory burden and create a seamless national economy. The formal harmonisation process started with the establishment of the Intergovernmental agreement for regulatory and operational reform in occupational health and safety (link is external) in July 2008.

The objectives of harmonising WHS laws through a model framework include:

- Protect the health and safety of Workers
- Improve safety outcomes in workplace
- Reduce compliance costs for business
- Improve efficiency for regulatory agencies.

5. DEFINITIONS:

Activities – events hosted, including services, and managed by the Church, whether on or off site.

Attendees – those that attend the services and activities of the Church, including its members, if any.

CCCVaT – Christian Community Churches in Victoria and Tasmania

Church – known under WHS as a **PCBU –** person conducting a business or undertaking, which in this circumstance will include the body responsible for managing the affairs of the church, being either a board instituted under the churches' constitution or the appointed/elected Leadership Team.

Code of Conduct – relative to a WHS environment, it is a set of rules outlining the how we treat people and how we expect people to treat others whilst on the Church's premises.

Contact Officer – a person appointed by the Church to lead and manage Work Health and Safety processes on behalf of the Church.

Contractor – is a person or an employee of an entity engaged by the Church to perform work on its behalf.

Employee - is a person employed by the Church, whether full time, part time or casually.

LT – leadership team or otherwise known as the body appointed by the Church to manage the affairs of the Church.

Model Rules - a single set of WHS laws developed by Safe Work Australia [When referred to they will include the WHS

laws of VIC and TAS which are yet to adopt these single set of WHS laws]

OHS – Occupation Health and Safety.

PCBU – person conducting a business or undertaking,

Supervisors – those appointed to manage the activities of the Church, including the Contact Officer and Team Leaders; where otherwise known.

Visitors – those that attend the services of the Church and its activities.

Volunteer - is a person engaged by the Church to perform work on its behalf or assist with its activities.

WHS – Work Health and Safety.

Workplace – place of worship or place where the church conducts its activities.

Workers – employees and volunteers of the Church and contractors employed by the Church to undertake a task.

6. COMMITMENT:

As Christians we have a moral responsibility to provide a safe and healthy work environment for Workers that extends beyond any legal responsibility that apply. In recognition, this policy may extend the rules that apply to others not technically covered under the Model Rules, including visitors and attendees of the Church and its activities.

As part of the overall WHS framework, the Church is to be committed to:

a. Complying with relevant WHS legislation, codes of practice, standards and guidelines.
b. Establishing measurable objectives and targets to ensure continued improvement aimed at eliminating injury and illness and, to exceed best practice.
c. Ensuring the mental wellbeing of all engaged in the Church's employment or Activities.
d. Documenting, implementing and communicating the Model Rules to all Workers, visitors and attendees.
e. Ensuring the WHS Policy is readily accessible to all Workers, visitors and attendees and interested parties.
f. Providing appropriate training to all Workers, visitors and attendees to ensure the Model Rules are understood, implemented and observed.
g. Ensuring the Church is kept informed regards all WHS matters.
h. Seeking, valuing and incorporating opinions from CCCVaT, other Churches, Workers, visitors and attendees in relation to processes impacting on the Church's health and safety program and processes.
i. Periodically reviewing the entire WHS program, to ensure it remains legislative compliant, relevant and appropriate to the activities of the Church.

7. OBJECTIVES:

Overall the objectives of this WHS policy are:

a. To have no injuries.
b. To provide effective and meaningful consultation to Workers, visitors and attendees regarding issues that affect their health, safety and welfare
c. To implement an OHS risk management program to identify, assess and control all risks to the health, safety and welfare of all people affected by the undertakings of the Church
d. To provide all Workers, visitors and attendees with adequate OHS systems, information, training, instruction and supervision to ensure work is conducted in the safest possible manner.

8. ACKNOWLEDGEMENT:

This policy recognises that Churches operate under the various Model Rules and have varying obligations regards WHS. Accordingly, this template is designed to enable Churches to add, subtract or modify sections of the policy as needed. However, it is not recommended any mandatory provisions are modified to the extent they become non-compliant.

9. WHO IS COVERED:

Generally, Churches that employ staff, use contractors and utilise volunteers are required to comply with WHS legislation. However, it is recommended that the same rules that apply to employees and volunteers are applied to attendees and visitors. As Christians we have a duty of care to all which extends beyond any legislative requirements.

10. RESPONSIBILITIES:

10.1 Contact Officer.

a. Leading and managing the WHS policy and planning process for the Church.

b. Liaising with Workers, visitors and attendees to ensure they understand the requirements of this policy and their obligations.

c. Reviewing and evaluating performance against the WHS processes for activities held by the Church and maintenance and, use of Workers to assist with them.

d. Holding Supervisors accountable for their responsibilities as prescribed within WHS framework.

e. Providing the leadership of the church with reports on WHS audits.

f. Recommending remedial action in the event a WHS audit reveals a deficiency in the policy or process or, highlights something that needs attending to ensure the ongoing safety of occupants.

g. Informing the leadership of the church in a timely manner an incident subject to WHS occurs.

10.2 Board or Leadership Team.

Although a Contact Officer is appointed to oversee the WHS processes for the Church [PCBU], the body responsible for managing the affairs of the church, being either a board instituted under the churches' constitution or the appointed/elected Leadership Team will be ultimately responsible for the implementation and performance of this Policy. This same body will be held accountable and liable by the government for any failure to have, implement and conform to the policy.

The body is responsible for:

a. Ensuring the Church complies with all legislation relating to health and safety.

b. Eliminating or minimising all workplace hazards and risks as far as is reasonably practicable.

c. Providing information, instruction and training to enable all Workers to work safely.

d. Make certain that all Workers are supervised to ensure activities are performed safely.

e. Consulting with and involving Workers on matters relating to health, safety and wellbeing.

f. Providing appropriate resources and safety and protective equipment, to ensure all activities can be carried out safely.

g. Ensuring the Church has a suitable recording and reporting mechanism to capture all activities and injuries.

h. Providing a suitable injury management and return to work program.

10.3 Person Conducting a Business or Undertaking [PCBU].

In Tasmania work health and safety responsibilities fall upon persons who conduct a business or undertaking (known as PCBUs), Public Authorities, and their Officers.

A Church will be a PCBU, and therefore owe a duty to ensure health and safety by eliminating or minimising risk. Even if a Church is not a PCBU, it might still be a Public Authority if it is regarded as having been established under an Act of Parliament.

Workers of a Church that is a PCBU, or a Public Authority, have a duty to act diligently in ensuring that their organisation carries out its work health and safety responsibilities. Although volunteer officers of a Church cannot be prosecuted for a breach of that duty; officers who are not volunteers (i.e. they are remunerated for their role) can be. And the organisation can be prosecuted. It is therefore vital that you treat your work health & safety responsibilities seriously with the diligence that they require and that you make every effort to co-operate with others who may share those responsibilities with you.

Tasmania and Victoria have work health and safety schemes that make it important that effective co-operation, consultation and co-ordination takes place whenever the activities of two or more people who owe a work health & safety duty are likely to impact on the safety of others.

Even if your Church is not a PCBU or a Public Authority, it is still important that it is a safe place for the carrying out of its ministries of worship, witness and service.

The Church and its ministries are encouraged to co-operate with each other in consulting about health and safety risks and in co-ordinating activities. The Church will ensure that there is adequate supervision and, where necessary, it will appoint Supervisors and provide training and resources appropriate to ensure that co-operation takes place and is carried out effectively.

Because the nature and structure of some ministry activities might require modification of the procedures in this manual, any proposed modification or departure from the procedures in this manual must be discussed with your Contact Officer before being implemented.

10.4 Employees and Volunteers.

Workers have a responsibility to ensure:

a. They have read and understood the Church's WHS Policy and its requirements.

b. Taking reasonable care for their own health and safety and, refraining from any activity likely to compromise this.

c. Following safe work procedures, instructions and rules.

d. Doing nothing that would impair the health or safety of fellow Workers, visitors and attendees.

e. Participating in safety training.

f. Reporting health and safety hazards.

g. Reporting all injuries and incidents.

h. Using safety equipment and personal protective equipment as required or instructed.

i. Where unsure regards any aspect of this WHS policy, its application or implementation, seek advice from the Contact Officer before proceeding with any activity.

10.5 All.

We all have a responsibility to one another to be vigilant about hazards, work within the confines of the WHS policy and ensure the safety of others at all times, including their mental wellbeing.

11. WHS MANUAL:

The WHS manual is divided into two section, Preliminary information and Code's of Practices. Each Code of Practice created by Safe Work Australia published in this manual is prefixed with a **#** prior to the heading. Each Code of Practice created by Safe Work Australia contains the following text:

TEXT 1:

Safe Work Australia is an Australian Government statutory agency established in 2009. Safe Work Australia consists of representatives of the Commonwealth, state and territory governments, the Australian Council of Trade Unions, the Australian Chamber of Commerce and Industry and the Australian Industry Group.

Safe Work Australia works with the Commonwealth, state and territory governments to improve work health and safety and workers' compensation arrangements. Safe Work Australia is a national policy body, not a regulator of work health and safety. The Commonwealth, states and territories have responsibility for regulating and enforcing work health and safety laws in their jurisdiction.

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Contact information

Safe Work Australia
Phone: 1300 551 832
Email: info@swa.gov.au
Website: safeworkaustralia.gov.au

To minimise space and duplication, it has not been included at the commencement of each Safe Work Australia Code of Practice.

Each Code of Practice created by Safe Work Australia also includes a '**FORWARD'**

Text 2: FORWARD

This Code of Practice on how to manage and control asbestos in the workplace is an approved code of practice under Section 274 of the *Work Health and Safety Act* (the WHS Act).

An approved code of practice is a practical guide to achieving the standards of health, safety and welfare required under the WHS Act and the Work Health and Safety Regulations (the WHS Regulations).

A code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code. Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks that may arise. The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice exist.

Codes of practice are admissible in court proceedings under the WHS Act and Regulations. Courts may regard a code of practice as evidence of what is known about a hazard, risk or control and may rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

The WHS Act and Regulations may be complied with by following another method, such as a technical or an industry standard, if it provides an equivalent or higher standard of work health and safety than the code.

An inspector may refer to an approved code of practice when issuing an improvement or prohibition notice.

This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' *Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety* for adoption by the Commonwealth, state and territory governments.

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

With the exception of the text included within the rectangle above, the message is usually the same.

Again to minimise space and duplication, the message excluding the text within the rectangle has not been included at the commencement of each Safe Work Australia Code of Practice. The text within the rectangle where it was included with the rest of the message, has been included.

USING THIS MANUAL:

Codes of Practice:

All the Safe Work Australia Model Codes of Practice are included in full or referenced in this Manual.

- The reason some Codes of Practice have only been reference and not published in full was due to their worth to Churches. That is not to imply that they may not be relevant or applicable in certain circumstance. The un-published Codes of Practice can be downloaded from Safe Work Australia's website or CCCVaT's.
- Each Code of Practice provides comprehensive guidance on work place health and safety. There may be content that is not relevant but included to cover most situational circumstances.

Inspection Schedules.

To maintain a safe work environment will require constant vigilance, monitoring and review. To assist Churches with this a number of inspection schedules have been created. It is recommended these inspection schedules be completed by the Contact Officer on a cyclical basis and reported to the body [PCBU] responsible for the management of the church at its next meeting. The PCBU must review these reports and where warranted action any recommendations in the report.

The inspection schedules are also included in MONIT's suite of schedules and for Churches that have subscribed to its service they will be periodically forwarded for completion. For further information on the service provided by MONIT refer to the relevant section in this manual.

12. WORK SAFE REGULATORS:

Jurisdiction	Regulator	Telephone	Website
Commonwealth	Comcare	1300 366 979	comcare.gov.au
Australian Capital Territory	WorkSafe ACT	02 6207 3000	worksafe.act.gov.au/healthsafety
New South Wales	SafeWork NSW	13 10 50	safework.nsw.gov.au
Northern Territory	NT WorkSafe	1800 019 115	worksafe.nt.gov.au
Queensland	WorkSafe Queensland	1300 369 915	worksafe.qld.gov.au
South Australia	SafeWork SA	1800 777 209	safework.sa.gov.au
Tasmania	WorkSafe Tasmania	1300 366 322	worksafe.tas.gov.au
Victoria	WorkSafe Victoria	1800 136 089	worksafe.vic.gov.au
Western Australia	WorkSafe WA	1300 307 877	commerce.wa.gov.au/WorkSafe/

For further information of visit: Link State Regulators

13. PENALTIES:

Commonwealth, Australian Capital Territory, New South Wales, Northern Territory and Queensland

Type of offence	Maximum penalty for corporation	Maximum penalty for officers	Maximum penalty for Workers
Category 1 – Breach of a health and safety duty involving recklessness as to the risk of death or serious injury or illness without reasonable excuse	$3,000,000	$600,000 or 5 years' imprisonment	$300,000 or 5 years' imprisonment
Category 2 – Breach of a health and safety duty which expose an individual to death or serious injury or illness (without recklessness)	$1,500,000	$300,000	$150,000
Category 3 – Other breaches of health and safety duties	$500,000	$100,000	$

Victoria

Type of offence	Maximum penalty for corporation	Maximum penalty for officers / Workers
Breach of a health and safety duty involving recklessness as to the risk of death or serious injury or illness	$3,171,400	$285,426

Effective as at 15.10.2017 – subject to annual review.

Western Australia

Level of offence	Maximum penalty for corporation	Maximum penalty for individual	Maximum penalty for employee
Level 1 –	$456,000		
Level 2 –	$200,000		
Level 3 –	$400,000		
Level 4 – Gross Negligence	$2,700,000		

Effective as at 25.05.2015 – subject to annual review.

Higher fines apply for second offences.

#PERSON CONDUCTING A BUSINESS/UNDERTAKING

INTERPRETIVE GUIDELINE

MODEL WORK HEALTH AND SAFETY ACT:

THE MEANING OF 'PERSON CONDUCTING A BUSINESS OR UNDERTAKING'

TABLE OF CONTENTS - INTERPRETIVE GUIDELINE MODEL WORK HEALTH AND SAFETY ACT:

1. INTERPRETIVE GUIDELINE MODEL WORK HEALTH AND SAFETY ACT:

This document provides guidance on the interpretation and application of the concept of a 'person conducting a business or undertaking' used in the Work Health and Safety (WHS) Act and Regulations.

The WHS Act places the primary duty of care and various other duties and obligations on a 'person conducting a business or undertaking' (**PCBU**). The meaning of a PCBU is set out in section 5 of the WHS Act.

This is a broad concept used to capture all types of modern working arrangements.

1.1 A 'PERSON' MAY BE AN ORGANISATION OR AN INDIVIDUAL:

A ‘person’ is defined in laws dealing with interpretation of legislation to include a body corporate (company), unincorporated body or association and a partnership.

An individual is also a ‘person’, but will only be a PCBU where that individual is conducting the business in their own right (as a sole trader or self-employed person). Individuals who are in a partnership that is conducting a business will individually and collectively be a PCBU.

Section 5 (4) of the WHS Act makes it clear that an individual is not a PCBU if they are involved in the business or undertaking only as a worker or officer of the business or undertaking.

The Crown is also a person for the purposes of the WHS Act. The Crown may conduct a business or undertaking through its departments and statutory agencies.

1.2 WHAT IS A ‘BUSINESS’ OR ‘UNDERTAKING’?

The WHS Act does not define a ‘business’ or ‘undertaking’.

Whether a person conducts a business or undertaking is a question of fact to be determined in the circumstances of each case. The following table identifies the usual meaning of these terms:

Businesses	→	enterprises usually conducted with a view to making a profit and have a degree of organisation, system and continuity
Undertakings	→	may have elements of organisation, systems, and possibly continuity, but are usually not profit-making or commercial in nature

The WHS Act states that a person conducts a business or undertaking whether it is conducted alone or together with others, and whether or not it is conducted for profit or gain.

1.3 THE CONCEPT OF ‘WORK’ IS RELEVANT TO IDENTIFYING WHAT IS A BUSINESS OR UNDERTAKING:

The duties of a PCBU are all associated with the carrying out of work. The definition of a ‘workplace’ is a place where work is carried out for a business or undertaking and includes any place where a worker goes, or is likely to be, while at work. The definition of a ‘worker’ is a person who carries out work in any capacity for a person conducting a business or undertaking.

The WHS Act also places duties on PCBUs who carry out the following activities associated with work or workplaces:

- **Section 20** – management or control of a workplace
- **Section 21** – management or control of fixtures, fittings or plant at a workplace
- **Sections 22-25** – design, manufacture, import or supply of plant, structures or substances that are, or could be used at a workplace
- **Section 26** – install, construct or commission plant or structures that are, or could be used at a workplace

1.4 WHAT IS WORK FOR THE PURPOSES OF THE MODEL WHS ACT?

What is ‘work’ is not defined in the WHS Act and must be given its ordinary meaning. The following criteria may assist in determining if an activity is work for the purposes of the WHS Act:

1. The activity involves physical or mental effort by a person or the application of particular skills for the benefit of another person or for themselves (if self-employed), whether or not for profit or payment.
2. Activities for which the person or other people will ordinarily be paid by someone is likely to be considered to be work.

3. activities that are part of an ongoing process or project may all be work if some of the activities are for remuneration;

4. An activity may be more likely to be work where control is exercised over the person carrying out the activity by another person.

5. Formal, structured or complex arrangements may be more likely to be considered to be work than ad hoc or unorganised activities.

The activity may be work even though one or more of the criteria are absent or minor.

Work does not include activities of a purely domestic, recreational or social nature. Organisations who also do things other than of a social, domestic or recreational nature would be PCBUs but would only owe duties in relation to 'work' and only so far as is reasonably practicable.

1.5 EXAMPLES OF A BUSINESS OR UNDERTAKING:

- A retailer
- A wholesale business
- A manufacturing business
- An importer that is on-selling the imported goods
- An owner-driver of their own transport or courier business
- A fast food franchisor and the operator of the fast food outlet (the franchisee)
- A self-employed person operating their own business
- A government department or government agency
- A local council
- A school
- Partnerships and unincorporated joint ventures. Where the partnership or joint venture is unincorporated, each partner is a person conducting the business or undertaking of the partnership or joint venture.
- A builder (including principal contractors and sub-contractors)
- A not-for-profit organisation that engages and pays administrative staff
- A clothing manufacturer employing outworkers

There may be multiple businesses or undertakings and therefore multiple PCBUs involved in work at the same location. For example:

- The owner of a multi-tenanted shopping centre, the manager of the shopping centre, each of the businesses operating from shops in the shopping centre and those carrying out ancillary activities such as cleaning, security and shopping trolley collection.
- The principal contractor on a construction site, sub-contractors engaged by the principal contractor, sub-contractors engaged by the sub-contractors (including self-employed contractors), along with the client engaging the principal contractor.
- A service station owner, the service station operator (if different from the owner), the mechanic (if running a separate business), the PCBU carrying out the supply of gas cylinders to the public at the service station and the operator of an attached fast-food outlet.

A single business or undertaking may also operate at multiple locations.

Where work requires approval from the relevant building regulator an owner-builder may be a PCBU and owe duties to

any workers or other persons at the workplace. In some circumstances where a landlord is carrying out work on an investment property that creates a risk to health and safety to other persons at the property they could also be a PCBU.

1.6 WHAT IS NOT A 'BUSINESS' OR 'UNDERTAKING'

The WHS Act and Regulations identify specific organisations that are not considered to be a PCBU for the purposes of the WHS Act. For example, the model Act provides that a volunteer association does not conduct a business or undertaking. (For further information in relation to volunteer organisations, refer to the Safe Work Australia volunteer fact sheets and frequently asked questions).

Section 5(4) of the WHS Act excludes a worker (such as an employee) and an officer (such as an executive manager) from being a PCBU in that capacity alone.

Also, elected members of local authorities, who are acting in that capacity, do not conduct businesses or undertakings.

The WHS Act allows further exclusions to be made by regulation. At this stage, the WHS Regulations exclude '*strata title bodies corporate that are responsible for common areas used only for residential purposes*', unless the strata title body corporate engages one or more workers as an employee.

1.7 PRIVATE OR DOMESTIC PURPOSES:

The regulators consider that the intent of the legislation is that the following kinds of persons should **not** to be taken to be PCBUs:

- Individuals who carry out domestic work in and around their own home (e.g. domestic chores etc).
- Individuals such as home-based foster carers who care for foster children.
- Individual householders who organise one-off events such as dinner parties, garage sales, lemonade stalls etc.
- Individual householders who engage persons to carry out ad hoc home maintenance and repairs or other domestic work, e.g. casual babysitters; tradespeople to undertake repairs. It is important to note that a tradesperson will either be a worker for a business or undertaking, or a business or undertaking in their own right if the tradesperson is self-employed.

An individual householder *may* have the duties of a PCBU if they *engage* a worker, for example, employing a nanny to care for children in the householder's home. While the householder is not employing the worker as part of a business, employing the worker to carry out certain duties at the home is regarded as an 'undertaking'. Consequently, the householder has a duty of care as a PCBU and the person employed by the householder has the worker's duty of care under the WHS Act.

A householder may also be a PCBU if 'work' is carried out by or for them that is not purely domestic, but is part of a business or undertaking conducted by them (e.g. a business is operated from home). The householder may then be a PCBU involving the management or control of the workplace, and have duties as such. If the person is undertaking 'work' for the householder, as part of the conduct of a business or undertaking by the householder, then the householder will have the primary duty in relation to that person.

A householder who is a foster parent is not a PCBU or worker. This is because the activities of a home-based foster parent in caring for a foster child are not regarded as work. The organisation or agency that arranges and monitors the foster care, would however be doing so as a PCBU, and its activities would be regarded as work. This means that organisations will have obligations to volunteer foster parents in so far as they can be affected by the PCBU's business or undertaking.

All of the facts will determine if in the particular circumstances there is a business or undertaking being conducted (in which 'work' is being carried out) or if the activities are of a private or domestic nature.

1.8 APPLICATION TO THE CROWN:

The WHS Act applies to businesses or undertakings conducted by the Crown in each jurisdiction. The Crown operates

through government departments and agencies which differ in size and complexity. In some jurisdictions the Crown may have responsibility for separate businesses or undertakings. In determining whether a department or agency conducts a business or undertaking on behalf of the Crown, matters such any legislation establishing or administered by the organisation, as well as organisational structure, governance and decision making will be considered.

Where a department operates through various agencies, the Crown will be the PCBU but the department or agency may be named in any proceedings or notices as the 'responsible agency'.

Note: this document is a general guideline only and should not be used as a substitute for seeking professional legal advice for your specific circumstances. The contents of this document are correct and based on available information at the time of writing. However, there may be subsequent decisions of courts or tribunals on the matter covered by this guide which mean that the contents are no longer accurate.

#REASONABLE PRACTICABLE

INTERPRETIVE GUIDELINE

MODEL WORK HEALTH AND SAFETY ACT

THE MEANING OF 'REASONABLY PRACTICABLE'

TABLE OF CONTENTS - INTERPRETIVE GUIDELINE MODEL WORK HEALTH AND SAFETY ACT:

1. INTRODUCTION:

This document provides guidance on the interpretation and application of the term 'reasonably practicable' in considering the standard of health and safety that a person conducting a business or undertaking (the duty-holder) is expected to meet under the Work Health and Safety (WHS) Act and Regulations.

'Reasonably practicable' is used to qualify duties to ensure health and safety and certain other duties in the WHS Act and Regulation. This standard and what is required to meet it in relation to a health and safety duty are set out in section 18.

2. HOW IS 'REASONABLY PRACTICABLE' DEFINED?

In this context, reasonably practicable means that which is, or was at a particular time, reasonably able to be done to ensure health and safety, taking into account and weighing up all relevant matters including:

a. The likelihood of the hazard or the risk concerned occurring.

b. The degree of harm that might result from the hazard or the risk.

c. What the person concerned knows, or ought reasonably to know, about the hazard or risk, and ways of eliminating or minimising the risk.

d. The availability and suitability of ways to eliminate or minimise the risk.

e. After assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

2.1 WHAT IS 'REASONABLY PRACTICABLE' IS AN OBJECTIVE TEST:

What is 'reasonably practicable' is determined objectively. This means that a duty-holder must meet the standard of behaviour expected of a reasonable person in the duty-holder's position and who is required to comply with the same duty.

There are two elements to what is 'reasonably practicable'. A duty-holder must first consider what can be done - that is, what is possible in the circumstances for ensuring health and safety. They must then consider whether it is reasonable, in the circumstances to do all that is possible.

This means that what can be done should be done unless it is reasonable in the circumstances for the duty-holder to do something less.

This approach is consistent with the objects of the WHS Act which include the aim of ensuring that workers and others are provided with the highest level of protection that is reasonably practicable.

2.2 HOW TO DETERMINE WHAT IS REASONABLY PRACTICABLE – THE PROCESS:

To identify what is or was reasonably practicable all of the relevant matters must be taken into account and weighed up and a balance achieved that will provide the highest level of protection that is both possible and reasonable in the circumstances. Some matters may be relevant to what can be done, while others may be relevant to what is reasonable to do.

No single matter determines what is (or was at a particular time) reasonably practicable to be done for ensuring health and safety.

2.3 WHAT MUST BE TAKEN INTO ACCOUNT AND WEIGHED UP:

Although section 18 sets out specific considerations, they are not the only things that may be relevant and other things may also need to be considered.

For example:

- There may be other legislation that requires or prohibits certain activities and limits what a duty-holder can do and the duty-holder must do what they reasonably are able to while complying with that other legislation.
- Whether a duty-holder can control or influence a particular thing or the actions of another person, or any limits on their ability to control or influence, may be relevant to what the duty holder can do, or what they may reasonably be expected to do. The WHS Act makes it clear, however, that a duty-holder cannot avoid responsibility by a contract giving control to someone else and through that attempting to contract out of their obligations.

The duty-holder should consider all of the facts and identify and consider everything that may be relevant to the hazards, risks or means of eliminating or minimising the risks.

The matters that must always be taken into account and weighed up are the following:

a. The likelihood of the hazard or the risk concerned occurring:

The greater the likelihood of a risk eventuating, the greater the significance this will play when weighing up all matters and determining what is reasonably practicable. If harm is more likely to occur, then it may be reasonable to expect more to be done to eliminate or minimise the risk.

b. Degree of harm that may result if the hazard or risk eventuated:

The greater the degree of harm that could result from the hazard or risk, the more significant this factor will be when weighing up all matters to be taken into account and identifying what is reasonably required (what is reasonably practicable) in the circumstances. Clearly, more may reasonably be expected of a duty-holder to eliminate or minimise the risk of death or serious injury than a lesser harm.

c. What the person concerned knows, or ought reasonably to know, about the hazard or risk and any ways of eliminating or minimising the risk:

The knowledge about a hazard or risk, and any ways of eliminating or minimising the hazard or risk, will be what the duty-holder actually knows, and what a reasonable person in the duty-holder's position (e.g. a person in the same industry) would reasonably be expected to know. This is commonly referred to as the state of knowledge.

A duty-holder can gain this knowledge in various ways, for example by:

- Consulting their workers and others in the industry
- Undertaking risk assessments
- Analysing previous incidents
- Considering relevant Regulations and Codes of Practice and other sources of information such as:
    - The regulator and its inspectors.
    - Reputable technical standards, such as those published by Standards Australia.
    - Industry publications.
    - Published scientific and technical literature.

Knowledge about the hazard or risk

It is reasonably practicable for a duty-holder to:

- Proactively take steps to identify hazards within their business or undertaking before they cause an incident, injury or illness. This should be done before the activity is undertaken or the circumstances occur that result in the risk.
- Understand the nature and degree of any harm that an identified hazard may cause, how the harm could occur, and the likelihood of the harm occurring.

It is also reasonably practicable for a duty-holder to consider and understand, within the available state of knowledge, how the following may cause or increase hazards and risks:

- Potential failure of plant, equipment, systems of work or safety measures.
- Human error or misuse, spontaneity, panic, fatigue or stress.
- Interaction between multiple hazards that may, together, cause different risks.

Knowledge about ways of eliminating or minimising the risk:

Regulations and Codes of Practice made under the WHS Act and other relevant legislation may identify ways to eliminate risks to health and safety, so far as is reasonably practicable and if that is not reasonably practicable to minimise risks so far as is reasonably practicable (referred to as control measures). Control measures set out in the WHS Act and Regulations must be complied with.

While duty-holders are not obliged to comply with Codes of Practice, they are expected to identify and consider this information. A court may have regard to a Code of Practice approved under the WHS Act as evidence of what is known about a hazard or risk, risk assessment or risk control, and rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

There may be many different ways of eliminating or minimising risks. The duty-holder should identify as many of these as they reasonably can, to give them the greatest scope to choose and apply the most appropriate means to eliminate or minimise a risk in the particular circumstances.

The ways of eliminating or minimising risks are ranked from most effective and reliable to the least effective and reliable (known as the hierarchy of risk controls) and are described below.

d. Availability and suitability of ways to eliminate or minimise risks:

This part requires a consideration of not only what is available, but also what is suitable for the elimination or minimisation of risk. A risk control that may be effective in some circumstances or environments may not be effective or suitable in others, because of things such as the workplace layout, skills of relevant workers, or the particular way in which the work is done.

Equipment to eliminate or minimise a hazard or risk is regarded as being available if it is provided on the open market, or if it is possible to manufacture it.

A work process (or change to a work process) to eliminate or minimise a hazard or risk is regarded as being available if it is feasible to implement.

A way of eliminating or minimising a hazard or risk is regarded as suitable if it:

- Is effective in eliminating or minimising the likelihood or degree of harm from a hazard or risk.
- Does not introduce new and higher risks in the circumstances.
- Is practical to implement in the circumstances in which the hazard or risk exists.

The hierarchy of risk controls:

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk control. The WHS Regulations require duty-holders to work through this hierarchy to choose the control that most effectively eliminates or minimises the risk in the circumstances.

- A duty-holder must eliminate health and safety risks so far as is reasonably practicable. If there are no available or suitable ways to eliminate a hazard or risk, then a duty-holder must consider all available and suitable ways to minimise risks, so far as is reasonably practicable by: substituting a hazard with something, or a number of things, that gives rise to a lesser risk.
- Isolating the hazard from any person exposed to it.
- Implementing engineering controls.

If there is a remaining risk, it must be minimised so far as is reasonably practicable by implementing administrative controls, and if a risk still remains, then suitable personal protective equipment must be provided and used.

How far a control may minimise risk, on its own or together with other controls, should be considered when weighing up what can reasonably be done. Some of the controls may lower the likelihood of harm, others may lower the degree of harm that may result, and some may lower both.

e. Cost of eliminating or minimising the risk:

Although the cost of eliminating or minimising risk is relevant in determining what is reasonably practicable, there is a clear presumption in favour of safety ahead of cost.

The cost of eliminating or minimising risk must only be taken into account **after** identifying the extent of the risk (the likelihood and degree of harm) and the available ways of eliminating or minimising the risk.

The costs of implementing a particular control may include costs of purchase, installation, maintenance and operation of the control measure and any impact on productivity as a result of the introduction of the control measure.

A calculation of the costs of implementing a control measure must take into account any savings from fewer incidents, injuries and illnesses, potentially improved productivity and reduced turnover of staff.

In identifying whether a particular expenditure is reasonable in the circumstances, the duty-holder must consider:

- The likelihood and degree of harm of the hazard or risk.
- The reduction of the likelihood and/or degree of harm that will result if the control measure is adopted.

The more likely the hazard or risk is, or the greater the harm that may result from the hazard, the less weight should be given to the cost of eliminating the hazard or risk.

The cost of risk control options, individually and together, may be relevant when deciding which of the available options are reasonably practicable, in a number of ways.

If there are a number of options available for eliminating or minimising a risk that achieve the same level of reduction in likelihood or degree of harm, a duty-holder may choose to apply a number of the least costly options. Using more expensive risk control options may not be required to minimise a risk that is low in likelihood or severity of harm.

Cheaper, available and suitable options may be used instead of a costlier option that may further minimise the risk or severity of harm, where the cost of the costlier option is grossly disproportionate to the risk. This will only apply where the cost is high and the likelihood or degree of harm is low (e.g. a slight chance of minor cuts or strains and the cost of replacing plant would be very high).

Choosing a low-cost option that provides less protection simply because it is cheaper is unlikely to be considered a reasonably practicable means of eliminating or minimising risk.

If the degree of harm is significant (e.g. death or serious injury is at least moderately likely) then it is unlikely that the cost of implementing available and suitable safety measures to eliminate or minimise the risk would ever be so disproportionate to the risk to justify a decision not to do so.

It may be reasonable to expect (and require) a duty-holder to eliminate the risk by ceasing the relevant activity if, after all 'affordable' control measures have been considered, there remains a significant risk of serious injury or illness.

Where the cost of implementing risk controls is grossly disproportionate to the risk – e.g. the cost of engineering changes to plant will be high and there is only a slight risk of minor sprains - then this may mean the use of those controls is not reasonable and not required. This does not, however, mean that the duty-holder is excused from doing anything to minimise the risk so far as is reasonably practicable. It may simply mean that a less expensive way of minimising the likelihood or degree of harm may instead be used.

[Capacity to pay is not relevant]

The question of what is 'reasonably practicable' is to be determined objectively, and not by reference to the duty-holder's capacity to pay or other particular circumstances. A duty-holder cannot expose people to a lower level of protection simply because it is in a lesser financial position than another duty-holder.

If two duty-holders are faced with the same hazard or risk in similar situations, one duty-holder cannot expose people to a lower level of protection simply because it is in a lesser financial position than another duty-holder.

If there are options available for eliminating or minimising a risk that achieve the same level of reduction in likelihood or degree of harm, a duty-holder may choose the least costly option. However, choosing a low cost option that provides less protection simply because it is cheaper is unlikely to be considered a reasonably practicable means of eliminating or minimising risk.

The costs of implementing a particular control may include costs of purchase, installation, maintenance, operation of the control measure and any impact on productivity as a result of the introduction of the control measure.

If a particular duty holder cannot afford to implement a control that is not so disproportionate to the risk as to be clearly

unreasonable, the duty holder should not engage in the activity that gives rise to that hazard or risk.

3. THE OPERATION OF 'REASONABLY PRACTICABLE' – AN EXAMPLE:

ABC Pty Ltd manufactures metal products used as components in industrial machinery. These are stamped on a press. Different dies are used for different items and the dies must be manually changed before each product run. The dies are heavy and are difficult to reach.

In this case, the company:

- Consults its workers to assist in identifying the hazards associated with the work, which are the cutting and crush hazards associated with the operation of the machine and the hazardous manual task associated with the changing of the die.
- Identifies the potential harm to the operators, which are crush amputation injuries and musculoskeletal injuries. These are assessed as having at least a moderately high likelihood of occurring if risk controls are not implemented and maintained.
- Determines the requirements for plant under the WHS Regulations and obtains information from relevant codes of practice and machinery suppliers about the various mechanical and other ways of minimising the likelihood or degree of harm. The option of replacing the machine with another that does not have the risks, or has in place means for minimising the risks to the lowest level is considered. Another option includes retrofitting guards to prevent the crush injuries and to use mechanical aids for the extraction, lifting and movement of the dies. These various measures will need to be supported by appropriate systems of work, training and supervision.
- Identifies which of the options are available and suitable for use in the circumstances and the degree to which they will individually or together eliminate or if that is not possible minimise the risks so far as is reasonably practicable. Considers whether particular risk controls may introduce other hazards or increase other risks.

Stopping the activity would eliminate the risk of amputation, crush injury and musculoskeletal injury, however, this option is not a realistic alternative as the stamping operation is an integral and necessary step in the manufacture of the dies.

Having identified what can reasonably be done, weighed up the degree and likelihood of harm and how far a control may minimise risk, ABC decides to purchase a new computerised machine which has come onto the market that does not require manually changing the dies. This option eliminates the hazardous manual task. The machine also includes a cut-off to stop the operation so that workers do not come into contact with moving parts during routine maintenance on the machine. It also produces less noise, which will minimise the risk of hearing loss.

Although the new machine is more expensive than retrofitting the existing machine with guarding, it provides significant health and safety benefits and also increases efficiency. Given the severity of harm and likelihood of it occurring, the costs are considered unlikely to be grossly disproportionate to the risk. If a new machine with improved design controls was not suitable or available, ABC could opt to retro-fit guards and sound minimising devices to the existing machines. This would also minimise the identified risks so far as is reasonably practicable.

ABC installs the new machine according to the manufacturer's instructions and provides its workers with relevant training on the safe operation and maintenance. The effectiveness of the risk controls are reviewed after one month in consultation with workers.

#MONIT

TABLE OF CONTENTS – INTRODUCTION TO MONIT:

INTRODUCTION:

It has never been simpler to address your Church's mandatory legal requirements to operate a business using the Monit system. Take some time to absorb all the information contained in the website and discover how the Monit safety management system will to help you achieve full WHS compliance.

- Monit is a safety management system, with a real person dedicated to your Church who manages all of your company's WHS data - ONLINE.
- You (or your delegated staff member) are provided with a monthly "to-do" checklist, and the results of your actions are recorded online every month for ongoing Workcover/WorkSafe compliance. You can produce updated reports for management and the leadership of your church and/or Workcover at any time.
- Safety Management System This document will reward the few short minutes you take to absorb it.
- The Monit system is fully compliant with each state and territory's WHS legislation, and is updated regularly to accommodate any changes in WHS laws for your peace of mind.
- The Monit safety management system is fully compliant with the new National Work Health & Safety Regulations and legislation (Harmonisation), which became effective in most states in 2012. Monit fulfils your requirement to demonstrate a "live WHS system" under this legislation.
- The system is currently in operation in a wide range of small to medium sized businesses, who are successfully using it to comply with the requirements of the WHS law.
- It is a proven and robust system based on best safety management practises tailored to your industry.
- It evaluates your risk exposure, and provides your company with regular step-by-step instructions each month which are based on your industry to reduce your risk.
- Churches using Monit's unique safety management system can be up and running within days.
- A premium service called Monit PLUS is available to customers using the Monit system on a fee-for-service basis. This service has access to the profession's best WHS consultants, who will be able to advise businesses on their statutory liabilities and specific requirements.
- Challenge us with your specific requirements and see how easily WHS compliance can be achieved for YOUR business.

#Planning

PLANNING:

- Develop a WHS Strategic Plan to ensure the Church will operate in accordance with WHS legislation and which is relevant to the needs of the Workplace.
- Appoint a Contact Officer.
- Adopt and apply a 'Code of Conduct'
- Conduct a risk assessment.
- Purchase necessary safety and protective equipment.
- Display the WHS policy and all warning signs in a relative and prominent position in the Workplace.
- Train all employees and volunteers in all aspects of the WHS policy and its requirements.
- Appoint people to manage the Activities.
- Create and maintain a calendar of events identifying who will be responsible for managing each Activity.
- Create and maintain a reporting mechanism to ensure the Church is kept abreast of all matters relating to WHS within the Workplace.
- Create and maintain a reporting mechanism to record all incidents.
- Select from the maintenance schedules ones appropriate to ensure the Church will operate in accordance with WHS legislation and are relevant to the needs of the Workplace.
- Ensure the maintenance schedules are periodically reviewed.
- Create a committee, headed by the Contact Officer, to periodically review the WHS policy to ensure it remains legislative compliant and is meeting the needs of the Workplace.

#Consultation

WORK HEALTH AND SAFETY CONSULTATION, CO-OPERATION AND CO-ORDINATION

Code of Practice

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FORWARD:

- A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

INTRODUCTION:

1. WHO HAS DUTIES IN RELATION TO CONSULTATION, CO-OPERATION AND CO-ORDINATION?

1.1 CONSULTING WITH WORKERS:

Section 47:	A person conducting a business or undertaking must consult, so far as is reasonably practicable, with Workers who carry out work for the business or undertaking and who are (or are likely to be) directly affected by a health and safety matter

This duty to consult is based on the recognition that worker input and participation improves decision-making about health and safety matters and assists in reducing work-related injuries and disease.

The broad definition of a 'worker' under the WHS Act means that you must consult with your employees plus anyone else who carries out work for your business or undertaking. You must consult, so far as is reasonably practicable, with your contractors and sub-contractors and their employees, on-hire Workers, volunteers and any other people who are working for you and who are directly affected by a health and safety matter.

Workers are entitled to take part in consultation arrangements and to be represented in relation to work health and safety by a health and safety representative who has been elected to represent their work group. If Workers are represented by a health and safety representative, consultation must involve that representative.

1.2 CONSULTING, CO-OPERATING AND COORDINATING ACTIVITIES WITH OTHER DUTY HOLDERS:

Section 46:	If more than one person has a duty in relation to the same matter, each person with the duty must, so far as is reasonably practicable, consult, co-operate and co-ordinate activities with all other persons who have a duty in relation to the same matter

Persons conducting a business or undertaking will have health and safety duties if they:

- Engage Workers to undertake work for them, or if they direct or influence work carried out by Workers
- May put other people at risk from the conduct of their business or undertaking
- Manage or control the workplace or fixtures, fittings or plant at the workplace
- Design, manufacture, import or supply plant, substances or structures for use at a workplace
- Install, construct or commission plant or structures at a workplace.

These duty holders' work activities may overlap and interact at particular times. When they share a duty, for example, a duty to protect the health and safety of a worker, or are involved in the same work, they will be required to consult, co-operate and co-ordinate activities with each other so far as is reasonably practicable.

Principal contractors for a construction project, as persons who manage or control the workplace, have specific duties under the WHS Regulations to have arrangements in place for consultation, co-operation and the co-ordination of activities between any persons conducting a business or undertaking at the site.

Officers, such as the leadership team, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking implements processes for complying with the duty to consult Workers as well as consulting, co-operating and coordinating activities with other duty holders.

Workers have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and co-operate with any reasonable health and safety policy or procedure, for example procedures for consultation at the workplace.

1.3 WHY IS CONSULTATION IMPORTANT?

Consultation is a legal requirement and an essential part of managing health and safety risks.

A safe workplace is more easily achieved when everyone involved in the work communicates with each other to identify hazards and risks, talks about any health and safety concerns and works together to find solutions. This includes cooperation between the people who manage or control the work and those who carry out the work or who are affected by the work.

By drawing on the knowledge and experience of your Workers, more informed decisions can be made about how the work should be carried out safely.

Effective health and safety consultation also has other benefits:

- **Greater awareness and commitment** – because Workers who have been actively involved in how health and safety decisions are made will better understand the decisions.
- **Positive working relationships** – because understanding the views of others leads to greater co-operation and trust.

In situations where you share responsibility for health and safety with another person, the requirement to consult, co-operate and co-ordinate activities with other duty holders will help address any gaps in managing health and safety risks that often occur when:

- There is a lack of understanding of how the activities of each person may add to the hazards and risks to which others may be exposed
- Duty holders assume that someone else is taking care of the health and safety matter
- The person who takes action is not the best person to do so.

The outcome of consulting, co-operating and coordinating activities with other duty holders is that you each understand how your activities may impact on health and safety and that the actions you each take to control risks are

complementary.

2. WHEN TO CONSULT WITH WORKERS:

Many organisational decisions or actions have health and safety consequences for Workers. For example, introducing new equipment into the workplace may affect the tasks your Workers carry out, the timeframes for doing work, how they interact with each other and the environment in which they work.

The WHS Act identifies specific matters that trigger the requirement for consultation.

Section 49: A person conducting a business or undertaking must consult with Workers when:

- identifying hazards and assessing risks arising from the work carried out or to be carried out
- making decisions about ways to eliminate or minimise those risks
- making decisions about the adequacy of facilities for the welfare of Workers
- proposing changes that may affect the health or safety of your Workers, and
- making decisions about procedures for consulting with Workers; resolving health or safety issues; monitoring health of your Workers; monitoring the conditions at the workplace and providing information and training for your Workers.

However, it may be useful to also consult Workers about matters that are not listed above, for example when conducting investigations into incidents or 'near misses'.

Regular consultation is better than consulting on a case-by-case basis only as issues arise because it allows you to identify and fix potential problems early.

2.1 MANAGING RISKS:

Consultation is required when identifying hazards, assessing risks and deciding on measures to control those risks.

In deciding how to control risks, you must consult with your Workers who will be affected by this decision, either directly or through their health and safety representative or the Contact Officer. Their experience may help you identify hazards and choose practical and effective control measures.

Regularly walking around the workplace, talking to your Workers and observing how things are done will also help you identify hazards. Conducting a survey of your Workers can provide valuable information about work-related health issues such as workplace bullying, stress, as well as muscular aches and pains that can signal potential hazards.

Workers and their health and safety representatives or the Contact Officer may need access to information such as technical guidance about workplace hazards and risks (plant, equipment and substances). Information should not be withheld just because it is technical or may be difficult to understand.

The WHS Act requires that you allow any health and safety representative or the Contact Officer for a work group to have access to information you have relating to hazards (including associated risks) affecting Workers in the work group and also any information about the health and safety of Workers in the work group. This does not extend access to any personal or medical information concerning a worker without the worker's consent.

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

2.2 DECIDING ON WELFARE FACILITIES:

Facilities are things provided for the welfare of Workers, such as toilets, drinking water, washing facilities, dining areas, change rooms, personal storage and first aid.

You must consult your Workers when making decisions about what facilities are needed (for example, the number and location of toilets), taking into consideration the number and composition of your workforce, the type of work your Workers do and the size and location of your workplace. The consultation should also cover things such as access,

cleaning and maintenance of the facilities.

If the facilities are already provided at the workplace, you should consult your Workers and their health and safety representatives or the Contact Officer when there are any changes that may affect the adequacy of the facilities. This will help you determine if you need to change or expand your facilities.

Further guidance is available in the Code of Practice: Managing the Work Environment and Facilities.

2.3 MAKING CHANGES:

You must consult your Workers when planning to make changes that may affect their work health and safety, for example when:

- Changing work systems such as shift work rosters, work procedures or the work environment
- Developing a new product or planning a new project
- Purchasing new or used equipment or using new substances
- Restructuring the church or a related enterprise.

2.4 DEVELOPING PROCEDURES:

A procedure sets out the steps to be followed for work activities. You must consult with affected Workers when developing procedures for:

- Resolving work health and safety issues
- Consulting with Workers on work health and safety
- Monitoring Workers' health and workplace conditions
- Providing information and training.

Procedures should be in writing to provide clarity and certainty at the workplace and assist in demonstrating compliance. They should clearly set out the role of health and safety representatives or Contact Officer, and any other parties involved in the activity. The procedures should be easily accessible, for example by placing them on noticeboards and intranet sites.

If issue resolution procedures are agreed to, the WHS Regulations include minimum requirements including that these procedures are set out in writing and communicated to all Workers to whom the procedure applies.

3 WHAT IS EFFECTIVE CONSULTATION?

Consultation is a two-way process between you and your Workers where you:

- Talk to each other about health and safety matters.
- Listen to their concerns and raise your concerns.
- Seek and share views and information.
- Consider what your Workers say before you make decisions.

Section 48: Consultation requires that:

- relevant work health and safety information is shared with Workers
- Workers are given a reasonable opportunity to express their views and to raise health or safety issues
- Workers are given a reasonable opportunity to contribute to the decision-making process relating to the health and safety matter
- the views of Workers are taken into account, and

- Workers are advised of the outcome of any consultation in a timely manner.

The Leadership Team's commitment and open communication between the Contact Officer, Supervisors and Workers is important in achieving effective consultation. Your Workers are more likely to engage in consultation when their knowledge and ideas are actively sought and any concerns about health and safety are taken seriously.

Consultation does not mean telling your Workers about a health and safety decision or action after it has been taken. Workers should be encouraged to:

- Ask questions about health and safety.
- Raise concerns and report problems.
- Make safety recommendations.
- Be part of the problem solving process.

While consultation may not result in agreement, this should be the objective as it will make it more likely that the decisions are effective and will be actively supported.

3.1 SHARING INFORMATION:

You must share relevant information with Workers and their health and safety representatives or Contact Officer about matters that may affect their health and safety. This information should be provided early on so that Workers and health and safety representatives have enough time to consider the matters, discuss them and then provide feedback to you.

You should make available all the information that you have relating to the health and safety matter to enable informed and constructive discussions. This information may include:

- Health and safety policies and procedures.
- Technical guidance about hazards, risks and risk control measures.
- Hazard reports and risk assessments.
- Proposed changes to the workplace, systems of work, plant or substances.
- Data on incidents, illnesses or injuries (in a way that protects the confidentiality of personal information).

The information should be presented in a way that can be easily understood by your Workers and take into account literacy needs and the cultural or linguistically diverse backgrounds of your Workers.

Young Workers and those with limited English may be less likely to question health and safety practices or speak up if they are unsure. They may find it easier to communicate through a health and safety representative, an interpreter or worker representative. Information should also be simplified and presented in different ways, such as using diagrams, to make it easier to understand.

Meeting face-to-face is usually the most effective way of communicating, although that may not always be possible or preferable. Information can also be shared in other ways, including:

- By telephone or email.
- Featuring current health and safety news and information on intranet sites or noticeboards.

Information should be updated and attention drawn to new material so that people who do not regularly check it will know what is happening in their workplace.

3.2 PROVIDING REASONABLE OPPORTUNITIES TO EXPRESS VIEWS AND CONTRIBUTE:

Giving your Workers a reasonable opportunity to express their views and contribute to health and safety decisions may involve:

- Providing a suitable time during work hours for consultation with Workers.
- Allowing opinions about health and safety to be regularly discussed and considered during workplace meetings.
- Providing Workers with different ways to provide feedback, for example using email, setting up an intranet health and safety page or a suggestion box.

How long the consultation process takes will depend on the complexity of the health and safety matter, how many people are being consulted, the accessibility of Workers and the methods of consultation. A simple issue affecting only a small number of Workers can probably be dealt with in a few hours or days through regular channels of communication. A complex technical matter, or consulting a large workforce, may require more time.

If there are health and safety representatives for the workplace, you must include them in the discussions, with or without the involvement of Workers directly.

3.3 TAKING VIEWS INTO ACCOUNT:

You must take the views of your Workers and health and safety representatives or Contact Officer into account before making a decision. Consultation does not require consensus or agreement but you must allow your Workers to contribute to any health and safety decisions you make in your business.

3.4 ADVISING OUTCOMES OF CONSULTATION:

You should agree to respond to concerns and questions raised by Workers within a certain timeframe and offer feedback about any options they propose. You must inform your Workers of your final decision or course of action as soon as possible. You should provide information to help them understand the reasons for your decision.

3.5 TO WHAT EXTENT SHOULD YOU CONSULT?

You must consult on health and safety matters so far as is reasonably practicable with Workers who carry out work for you and who are (or are likely to be) directly affected. This includes consulting with your contractors and their Workers and volunteers (if any) about health and safety decisions that directly affect them and which you influence or control.

Consultation that is 'reasonably practicable' is both possible and reasonable in the particular circumstances. What is reasonably practicable will depend on factors such as the:

- Size and structure of the Church.
- Nature of the work that is carried out.
- Nature and severity of the particular hazard or risk.
- Nature of the decision or action, including the urgency to make a decision or take action.
- Availability of the relevant Workers and any health and safety representatives.
- Work arrangements, such as shift work and remote work.
- Characteristics of the Workers, including languages spoken and literacy levels.

The aim of consultation should be to ensure that you have sufficient information to make well-informed decisions and that the Workers who may be affected are given a reasonable opportunity to provide their views and understand the reasons for the decisions.

You are not expected to do the impossible, but are required to take a proactive and sensible approach to consultation. For example, an urgent response to an immediate risk may necessarily limit the extent of consultation in some circumstances. It may also not be reasonably practicable to consult with Workers who are on extended leave. However, it would be appropriate to ensure that these Workers are kept informed about any matters that may affect their health and safety when they return to work.

It is not always necessary to consult with every worker in your workplace. The Workers you consult with will be those

who are, or could be, directly affected by the health and safety matter. For example, a problem with air temperature experienced on one level of an office block may not directly affect the work health and safety of Workers on other levels. Only Workers on the affected level need to be consulted about the matter.

3.6 MUST CONSULTATION BE DOCUMENTED?

Consultation with Workers and with other duty holders does not have to be documented unless specifically required under the WHS Regulations. However, it is recommended that you keep records to demonstrate compliance with consultation requirements. Records of consultation may also assist the risk management process and make disputes less likely.

The records should include any outcomes of discussions. The records can be brief and simple, and cover:

- Who is involved.
- What the safety matter is.
- What decision has been made.
- Who is to take action and by when.
- When the action has been completed.

4 HOW TO CONSULT WITH WORKERS

Consultation with Workers can be undertaken in various ways. It does not need to be a formal process and can be as simple as talking to them regularly and considering their views when making health and safety decisions. Consultation can also be undertaken through health and safety representatives and health and safety committees. However, the WHS Act does not require the establishment of these consultation mechanisms, unless:

- In relation to a health and safety representative – a request is made by a worker.
- In relation to a health and safety committee – a request is made by 5 or more Workers or a health and safety representative.

You may establish any arrangements for consultation to suit your Workers and workplace situations, including agreed consultation procedures, as long as those arrangements are consistent with the requirements of the WHS Act.

4.1 WHAT KIND OF CONSULTATION IS BEST FOR YOUR WORKPLACE?

Consultation arrangements should take into account the size of the Church, the way work is arranged and what suits your Workers. Many workplaces will already have ways to consult on health and safety that suit their needs. These arrangements can continue if they are consistent with the requirements of the WHS Act and Workers have been consulted about them.

To determine how best to consult, you should first discuss with your Workers issues such as:

- The duty to consult and the purpose of consultation.
- The range of work and associated health and safety issues at the workplace.
- The various ways for consultation to occur, including your Workers' right to elect a health and safety representatives.
- Your Workers' ideas about the most effective way to consult.

You should work out methods that:

- Meet your duty to consult.
- Ensure all Workers can participate in consultation including any shift Workers or mobile Workers.
- Will best integrate with the way your Church manages health and safety.

Consideration should be given to how the Leadership Team normally communicates with the Workers. You may not need to establish separate consultation arrangements if there are regular discussions between the Contact Officer or supervisors and the Workers, for example weekly team meetings. This may be the case in a Church with few Workers where there are direct discussions as part of everyday work.

In Churches where it may not be reasonably practicable to consult each worker individually, health and safety representatives or committees may be more appropriate. Some workplaces may need a mix of consultation arrangements to suit different types of Workers and situations. For example, a business may have a number of full-time Workers where structured arrangements involving health and safety representatives and committees may be suitable. On occasions the business may also engage contractors or on-hire Workers to carry out specific tasks, where arrangements such as 'toolbox talks' (short discussions on specific health and safety topics relevant to the task) may be the most practical way to consult with them.

When unexpected matters arise, there may not be time to plan consultation, so consideration should be given to whether the issue can be addressed through one of the regular communication channels, or if there is a need to do something different like hold a one-off meeting.

See Appendix A for examples of consultation arrangements for different types of workplaces.

4.2 AGREEING ON CONSULTATION PROCEDURES:

The WHS Act does not require a person conducting a business or undertaking to reach agreement with their Workers on how consultation will occur, but doing so will help to make the consultation more effective.

> **Section 47(2):** If a person conducting a business or undertaking and the Workers have agreed to procedures for consultation, the consultation must be undertaken according to those procedures**.**

Agreeing on procedures for consultation with Workers can save time and confusion about how and when consultation must occur. The agreed consultation procedures should clarify key responsibilities of people in the workplace and clearly state when consultation is necessary.

Before consultation procedures can be agreed, you must genuinely consult about the proposed procedures with all affected Workers, including any health and safety representatives for the relevant Workers.

If procedures for consultation are agreed, they must be consistent with the requirements of the WHS Act and the consultation must be conducted in accordance with those procedures. For example, the procedures must include sharing of information, allowing Workers a reasonable opportunity to express their views and cannot remove the powers of any health and safety representatives or the functions of any health and safety committee established for the workplace.

Agreed consultation procedures are likely to be most effective if they include:

- The matters that require consultation.
- Who will be consulted.
- The ways consultation will occur, for example, through regular meetings, tool-box talks or health and safety representatives.
- How information will be shared with Workers and health and safety representatives.
- What opportunities will be provided for Workers and health and safety representatives to give their views on proposed matters.
- How feedback will be given to Workers and health and safety representatives.
- How consultation will occur with any Workers who have special language and literacy needs.
- Timeframes for reviewing the procedures.

The procedures may also include the provision of practical assistance for affected Workers and health and safety representatives to facilitate the consultation process. For example, opportunities may be made available for affected Workers and their health and safety representatives to come together to consider the information that has been provided, to discuss the issues and form their views.

While more detailed procedures will assist in providing consistency and certainty of approach, the procedures should be flexible enough to respond to different circumstances (such as urgency).

In a Church with few Workers, effective informal agreed procedures that are understood by everyone in the Church should be sufficient, though these should be discussed and reinforced regularly. In larger workplaces, documented procedures are appropriate.

Consultation procedures should be monitored and reviewed to ensure they continue to be effective.

4.3 CONSULTING USING HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEES:

Health and safety representatives:

A Worker may ask you for the election of a health and safety representative to represent them on work health and safety matters. If a worker makes this request, work groups must be established to facilitate the election. The process requires you and your Workers to negotiate and agree on the formation of work groups.

Section 52(3): The purpose of the negotiations is to determine:

- The number and composition of work groups to be represented by health and safety representatives.
- The number of health and safety representatives and deputy health and safety representatives (if any) to be elected.
- The workplace or workplaces to which the work groups will apply.
- The businesses or undertakings to which the work groups will apply.

A work group may operate across multiple businesses if all parties agree to such an arrangement.

Section 52-53: To establish a work group, the person conducting the business or undertaking must:

- Take all reasonable steps to commence negotiations with the Workers within 14 days after a worker makes the request.
- Negotiate with a worker's representative (such as a union official) if a worker asks you to do so.
- Notify the Workers of the outcome of the negotiations and of any work groups determined by agreement as soon as practicable after negotiations are complete.

Section 54: If negotiations fail, you or a work group member can ask the regulator to appoint an inspector to assist negotiations and determine certain matters if negotiations remain unresolved.

Even if your Workers do not make a request you can alert your Workers to their rights to be consulted and to elect health and safety representatives under the WHS Act.

Where health and safety representatives have been elected, they must always be included in any consultation that affects, or is likely to affect, the health and safety of members of their work group.

The WHS Act and Regulations contain further provisions regarding health and safety representatives including the determination of work groups, conduct of elections and their functions and powers.

Health and safety committees:

A health and safety committee brings together Workers and management to assist in the development and review of health and safety policies and procedures for the workplace.

Section 75: A person conducting a business or undertaking must establish a health and safety committee within two months after being requested to do so by 5 or more Workers, or by a health and safety representative, at the workplace.

Section 76: Health and safety representatives may choose to be members of the health and safety committee. In total, at least half of the members of the committee must be Workers who are not nominated by management.

If you and your Workers cannot agree about the health and safety committee in a reasonable time, either party can ask the regulator to appoint an inspector to decide on the make-up of the health and safety committee, or whether it should be established at all.

Section 78: Health and safety committees must meet at least every 3 months.

You can also initiate establishing a committee yourself if you consider it will help you meet your duty to consult and assist your workforce to participate in making health and safety decisions. A health and safety committee can be a good option if a business has a significant number of Workers who are reluctant to take on the role of a health and safety representative, but some would be willing to participate on a committee. A committee may also be effective for a large business to consult on matters that are the same across a number of work groups or workplaces.

The benefits of a health and safety committee include:

- Having regular, planned and structured discussions about health and safety matters.
- Encouraging a co-operative approach to health and safety.
- Bringing together a group of worker and business representatives to collaboratively discuss and develop ways of improving the systems for managing health and safety at the workplace.
- Encouraging the development and retention of corporate knowledge on health and safety matters for the workplace.

The membership of the health and safety committee should be determined by agreement between you and the Workers at the workplace to be represented by the committee.

When a workplace has both a health and safety committee and health and safety representatives then there should be a clear distinction between their roles.

- Health and safety representatives are involved with the specific health and safety issues relevant to the work group they represent.
- The health and safety committee is the forum for consultation on the management of health and safety across the whole workforce. It should consider the development, implementation and review of the policies and procedures associated with the organisation's work health and safety system.

If the workplace has a health and safety committee but does not have health and safety representatives, the committee may consider the issues that a health and safety representative would normally be involved in.

The Worker Representation and Participation Guide provides further information on health and safety representatives and committees.

4.5 SHARING CONSULTATION ARRANGEMENTS WITH OTHER DUTY HOLDERS:

If you have contractors or on-hire Workers as part of your workforce you share a duty of care to these Workers as well as consultation duties with the organisation that provides them. You should consult, co-operate and co-ordinate activities with the contractor or on-hire firm to develop your shared consultation arrangements with the Workers. In doing this you should consider the types of issues that may arise where you would need to consult the contractor or on-hire firm and their Workers.

For example, you may propose to change the work carried out by contractors. This may involve changing the equipment, substances or materials used in the production process or the way tasks are carried out. You should ask:

- How should I inform and discuss proposed changes with the contractors' on-hire or contractor firm?
- How should we both co-ordinate consultation with the affected Workers?
- How should we each respond to a safety issue raised by one or more of the contractors or to a request from the Workers to be represented by a health and safety representative?

A health and safety committee may be in place at the workplace and may be an effective way of consulting with Workers, or between duty holders.

4.6 HOW SHOULD THE CONSULTATION ARRANGEMENTS BE REVIEWED?

When you have established ways to consult on health and safety that suit your workplace, you should monitor and review these procedures in consultation with Workers and health and safety representatives to ensure that consultation meets the requirements under the WHS Act and Regulations.

A checklist of things to consider when reviewing consultation arrangements is at Appendix B.

5 HOW TO CONSULT, CO-OPERATE AND CO-ORDINATE ACTIVITIES WITH OTHER DUTY HOLDERS:

There are often situations where more than one Church or undertaking operates at a workplace and where people share responsibility for work health and safety to varying degrees, for example multi-congregations, joint ministries and activities etc.

Section 16: The WHS Act requires that where more than one person has a duty for the same matter, each person retains responsibility for their duty in relation to the matter and must discharge the duty to the extent to which the person can influence and control the matter.

Section 46: In these situations, each person with the duty must, so far as is reasonably practicable, consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter.

People often assume that someone else is going to take action for health and safety, perhaps because that other person is more directly involved in the activity. This may be more likely where there are numerous people involved in the work. This can mean that nobody takes the necessary action.

Each person conducting a business or undertaking must ensure, so far as is reasonably practicable, the elimination or minimisation of risks to health and safety. This includes ensuring, for example, that safe plant is used, that there are adequate welfare facilities for Workers and that training is provided to Workers.

You must ensure these requirements are met even if others may also have the duty to do so. You may ensure the outcomes by not necessarily taking the required action yourself, but making sure that another person is doing so.

Talking to, and co-operating and coordinating activities with others who are involved in the work or things associated with the work will make the control of risks more likely and assist each duty holder comply with their duty. It can also mean that health and safety measures are more efficiently undertaken.

For example, you may not need to provide toilet facilities for your Workers if they are already available, but you need to check that those facilities are in good working order, clean and accessible for your Workers. Consultation, co-operation and co-ordination between you and the person providing those facilities will help you ensure that the necessary steps are being taken so that you can meet your duty.

What is reasonably practicable in relation to consulting, co-operating and coordinating activities with other duty holders will depend on the circumstances, including the nature of the work and the extent of interaction.

5.1 WHO MUST CONSULT, CO-OPERATE AND CO-ORDINATE AND WITH WHOM:

The first step is to identify who the other duty holders are that you need to consult, co-operate and co-ordinate activities with. The duty requires each person with a health and safety duty to consult, co-operate and co-ordinate activities with each other person who has a duty over the same matter.

Examples of who may need to be involved in consultation, co-operation and co-ordination of activities are as follows:

- Various contractors who are involved in the same work at the same time at a workplace will need to consult, cooperate and co-ordinate activities with each other as they may each affect the health or safety of their own Workers or the Workers of other business operators or other people at or near the workplace.
- An installer of plant at a workplace and the person with management or control of the workplace should consult, co-operate and co-ordinate activities with each other in relation to when, where and how the plant is to be installed to control any health and safety risks.
- A Church should consult with a contractor carrying out maintenance or repair work.

5.2 WHEN MUST YOU CONSULT, CO-OPERATE AND CO-ORDINATE WITH OTHERS?

You should commence consultation, co-operation and coordinating activities with other duty holders when you become aware they are or will be involved in the work. This will usually be apparent from the circumstances, through contractual arrangements, presence on site or the need for others to be involved in the work.

You should identify who else will be involved in the work, make contact with them and commence discussions as soon as they are reasonably able to do so. This may occur as part of contractual negotiations, or discussions when you are engaged to carry out the work, or when you engage another business to carry out work for your business or undertaking.

You may not be the first business or undertaking to be involved in the work, or may not initially be aware that others are involved in it. You may be contacted by another duty holder and asked to engage in consultation.

Consultation should commence during the planning of the work, to ensure that health and safety measures are identified and implemented from the start. A need for further consultation may arise when circumstances change over the period of the work, including the work environment and the people involved in the work. This is particularly so in construction and other long term projects.

Co-operation and co-ordination with other duty holders should be an ongoing process throughout the time in which you are involved in the same work and share the same duty.

5.3 WHAT IS MEANT BY CONSULTATION WITH OTHER DUTY HOLDERS?

The objective of consultation is to make sure everyone associated with the work has a shared understanding of what the risks are, which Workers are affected and how the risks will be controlled. The exchange of information will allow the duty holders to work together to plan and manage health and safety.

The consultation should include:

- What each will be doing, how, when and where and what plant or substances may be used.
- Who has control or influence over aspects of the work or the environment in which the work is being undertaken.
- Ways in which the activities of each duty holder may affect the work environment.
- Ways in which the activities of each duty holder may affect what others do.
- Identifying the Workers that are or will be involved in the activity and who else may be affected by the activity
- What procedures or arrangements may be in place for the consultation and representation of Workers, and for issue resolution.
- What information may be needed by another duty holder for health and safety purposes.

- What each knows about the hazards and risks associated with their activity.
- Whether the activities of others may introduce or increase hazards or risks.
- What each will be providing for health and safety, particularly for controlling risks.
- What further consultation or communication may be required to monitor health and safety or to identify any changes in the work or environment.

This consultation will determine which health and safety duties are shared and what each person needs to do to co-operate and co-ordinate activities with each other to comply with their health |and safety duty.

5.4 WHAT IS MEANT BY CO-OPERATION?

What is required for co-operation should have been identified in the consultation process.

Co-operation may involve implementing arrangements in accordance with any agreements reached during consultation with the other duty holder and involve not acting in a way that may compromise what they are doing for health and safety.

Co-operation also means that, if you are approached by other duty holders wanting to consult with you on a health and safety matter, you should:

- Not obstruct communication.
- Respond to reasonable requests from other duty holders to assist them in meeting their duty.

5.5 WHAT IS MEANT BY CO-ORDINATION?

The co-ordination of activities requires duty holders to work together so that each person can meet their duty of care effectively without leaving any gaps in health and safety protection. You should plan and organise activities together with the other duty holders.

This will include making sure that the measures you each put in place work effectively together to control the risks. You should:

- Identify when and how each control measure is to be implemented.
- Ensure control measures complement each other.

Co-ordination of activities may include the scheduling of work activities so that each duty holder carries out their work separately. It may require work to be arranged in a way that will allow for necessary precautions to be in place or pre-conditions met before particular work is done.

Where work is not effectively coordinated, the parties should consult further to determine what should be changed.

5.6 WHAT IF ANOTHER DUTY HOLDER REFUSES TO CONSULT OR CO-OPERATE OR CO-ORDINATE?

What is reasonably practicable for you may depend on the level of participation of other duty holders. For example, there may be disagreement between you as to the extent of consultation, co-operation and co-ordination of activities that is required in the circumstances.

This does not mean that you should simply accept what you consider to be inadequate action by another duty holder. You should check that they are aware of this duty and what you consider is needed to comply with it, and with the health and safety duties that you each have.

Written arrangements are not essential, but they may help to clarify everyone's expectations. You should consider including in your contracts a requirement for other parties to consult, co-operate and co-ordinate on safety matters, as that can be very useful. This will make the other party clearly aware of the obligation and give you a contractual right to enforce it.

See Appendix C for examples of how to consult, co-operate and co-ordinate activities with other duty holders.

Code of Conduct

We the Church believe we are called to reflect God's character and should act in a way that honours him.

Titus 3:1-2

Remind the believers to submit to the government and its officers. They should be obedient, always ready to do what is good. They must not slander anyone and must avoid quarrelling. Instead, they should be gentle and show true humility to everyone.

We actively promote:

a. A safe environment where abuse of any nature is neither tolerated nor able to take place.

b. A safe environment where bullying of any kind is neither tolerated nor able to take place. Bullying can include:

   i. Exclusion from a group or activity.

   ii. Intimidation.

   iii. Extortion.

See Appendix F for advice on bullying and harassment.

a. A safe environment where harassment is neither tolerated nor allowed to take place. Harassment is unwelcome conduct whether intended or not which makes another person feel offended, belittled, threatened which may occur through a single incident or a series of incidents over a period of time. Harassment can include:

   i. Unwelcome physical contact.

   ii. Gestures or language that could give offence including unwarranted shouting.

   iii. Unjustified or unnecessary comments about a person's attributes or abilities.

a. A safe environment where unacceptable or crude language is not tolerated nor allowed.

b. A safe environment where the abuse of drugs and alcohol is not tolerated nor allowed.

c. Confidentiality: Confidentiality and trust are fundamental to sound Church relationships and must be upheld within the constraints of the law and statutory requirements. Voluntary reporting is strongly encouraged where a belief has been formed that there is a requirement to do so.

d. A safe environment for Children where the Church conforms to the Governmental screening procedures and implements Child Protection policies in conjunction and along with this policy.

e. A safe environment where mental health is maintained. The following stress can affect a person's Mental Health:

i. Job demand – the level of physical, mental and emotional effort required to do a job.

ii. Job control – the level of control a worker has over aspects of their work including how or when a job is done.

iii. Support – the level of support from supervisors and co-Workers, information, equipment and resources available to allow the work to be done.

iv. Workplace relationships – the nature of relationships between Workers, managers, supervisors, co- Workers and clients.

v. Role clarity – the overall scope or responsibilities of the job, clarity about the objectives, key accountabilities and management expectations of Workers.

vi. Organisational change management – how change in the organisation, structure or job is communicated and the extent of worker involvement during these changes.

vii. Recognition and reward, - the nature of feedback on task performance, performance reviews, opportunities for skills development, formal and informal rewards.

viii. Organisational justice – perceptions of unfairness, consistency, bias and respect for Workers.

It is important that Workers have the right to say no if they feel unsafe and have access to report unsafe behaviour or practices. (See Incident Reports). Employment reviews should include questions around these items to ensure these practices are not occurring within the Church.

To ensure that these behaviour's are maintained and effective, the Church will follow the Complaints and Procedure Policy.

Code of Ethics

#Code of Practice

FOREWORD:

An approved Code of Practice is a practical guide to achieving the standards of health, safety and welfare required under the WHS Act and the Work Health and Safety Regulations (the WHS Regulations).

A code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code. Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks that may arise. The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice exist.

Codes of Practice are admissible in court proceedings under the WHS Act and Regulations. Courts may regard a Code of Practice as evidence of what is known about a hazard, risk or control and may rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

Compliance with the WHS Act and Regulations may be achieved by following another method, such as a technical or an industry standard, if it provides an equivalent or higher standard of work health and safety than the code.

An inspector may refer to an approved code of practice when issuing an improvement or prohibition notice.

The Code of Practices included in this Workplace Health and Safety manual where prefixed with **'#'** have been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.

The foregoing Forward is included in most of the following Codes of Practices which for the sake of efficiency and space has not been repeated at the start of each code.

#Managing WHS Risks

HOW TO MANAGE

WORK HEALTH AND SAFETY RISKS

Code of Practice

TABLE OF CONTENTS

- **APPENDIX B – RISK REGISTER**
- **APPENDIX C – CASE STUDIES**

FOREWORD:

This Code of Practice on how to manage work health and safety risks is an approved code of practice under Section 274 of the Work Health and Safety Act (the WHS Act).

An approved code of practice is a practical guide to achieving the standards of health, safety and welfare required under the WHS Act and the Work Health and Safety Regulations (the WHS Regulations).

A code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code. Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks that may arise. The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice exist.

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This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' *Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety* for adoption by the Commonwealth, state and territory governments.

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

SCOPE AND APPLICATION:

This Code provides practical guidance for persons who have duties under the WHS Act and Regulations to manage risks to health and safety. The duty is placed on persons conducting a business or undertaking, including employers, self-employed, principal contractors and persons with management or control of a workplace, designers, manufacturers, importers and suppliers of plant, substances or structures that are used for work.

This Code applies to all types of work and all workplaces covered by the WHS Act. Other approved codes of practice should be referenced for guidance on managing the risk of specific hazards.

HOW TO USE THIS CODE OF PRACTICE:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to sections of the WHS Act and to regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION:

1.1 WHO HAS RESPONSIBILITY FOR MANAGING WORK HEALTH AND SAFETY RISKS?

The WHS Act and Regulations require persons who have a duty to ensure health and safety to 'manage risks' by eliminating health and safety risks so far as is reasonably practicable, and if it is not reasonably practicable to do so, to

minimise those risks so far as is reasonably practicable.

Persons conducting a business or undertaking will have health and safety duties to manage risks if they:

- Engage workers to undertake work for them, or if they direct or influence work carried out by workers.
- May put other people at risk from the conduct of their business or undertaking.
- Manage or control the workplace or fixtures, fittings or plant at the workplace.
- Design, manufacture, import or supply plant, substances or structures for use at a workplace.
- Install, construct or commission plant or structures at a workplace.

Deciding what is 'reasonably practicable' to protect people from harm requires taking into account and weighing up all relevant matters, including:

- The likelihood of the hazard or risk concerned occurring.
- The degree of harm that might result from the hazard or risk.
- Knowledge about the hazard or risk, and ways of eliminating or minimising the risk.
- The availability and suitability of ways to eliminate or minimise the risk.
- After assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

The process of managing risk described in this Code will help you decide what is reasonably practicable in particular situations so that you can meet your duty of care under the WHS laws.

Officers (for example company directors) must exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to:

- Gain an understanding of the hazards and risks associated with the operations of the business or undertaking
- Ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks to health and safety.

A person can have more than one duty and more than one person can have the same duty at the same time.

1.2 THE MEANING OF KEY TERMS:

Hazard means a situation or thing that has the potential to harm a person. Hazards at work may include: noisy machinery, a moving forklift, chemicals, electricity, working at heights, a repetitive job, bullying and violence at the workplace.

Risk is the possibility that harm (death, injury or illness) might occur when exposed to a hazard.

Risk control means taking action to eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimising the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard.

1.3 WHAT IS INVOLVED IN MANAGING RISKS?

Management commitment:

Effective risk management starts with a commitment to health and safety from those who operate and manage the business or undertaking. You also need the involvement and cooperation of your workers, and if you show your workers that you are serious about health and safety they are more likely to follow your lead.

To demonstrate your commitment, you should:

- Get involved in health and safety issues.
- Invest time and money in health and safety.
- Ensure health and safety responsibilities are clearly understood.

A step-by-step process:

A safe and healthy workplace does not happen by chance or guesswork. You have to think about what could go wrong at your workplace and what the consequences could be. Then you must do whatever you can (in other words, whatever is 'reasonably practicable') to eliminate or minimise health and safety risks arising from your business or undertaking.

This process is known as *risk management* and involves the four steps set out in this Code (see Figure 1 below):

- **Identify hazards** – find out what could cause harm.
- **Assess risks** if necessary – understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening.
- **Control risks** – implement the most effective control measure that is reasonably practicable in the circumstances.
- **Review control measures** to ensure they are working as planned.

Figure 1 The risk management process

Many hazards and their associated risks are well known and have well established and accepted control measures. In these situations, the second step to formally assess the risk is unnecessary. If, after identifying a hazard, you already know the risk and how to control it effectively, you may simply implement the controls.

Risk management is a proactive process that helps you respond to change and facilitate continuous improvement in your business. It should be planned, systematic and cover all reasonably foreseeable hazards and associated risks.

Consulting your workers:

Section 47: The WHS Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Consultation with workers and their health and safety representatives is required at each step of the risk management process. By drawing on the experience, knowledge and ideas of your workers you are more likely to identify all hazards and choose effective control measures.

You should encourage your workers to report any hazards and health and safety problems immediately so that risks can be managed before an incident occurs.

If you have a health and safety committee, you should engage the committee in the risk management process as well.

Consulting, co-operating and co-ordinating activities with other duty holders

Section 46: The WHS Act requires that you consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved in the same activities or who share the same workplace. For example, if you engage on-hire workers as part of your workforce you share a duty of care to these workers with the business that provides them. In these situations, you must discuss the hazards and risks associated with the work and what precautions will be taken with the on-hire firm.

Never assume that someone else is taking care of a health and safety matter. Find out who is doing what and work together with other duty holders in a co-operative and coordinated way so that all risks are eliminated or minimised as far as reasonably practicable.

When entering into contracts you should communicate your safety requirements and policies, review the job to be undertaken, discuss any safety issues that may arise and how they will be dealt with. Remember that you cannot transfer your responsibilities to another person.

Further guidance on consultation is available in the:

Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination.

1.4 WHEN SHOULD A RISK MANAGEMENT APPROACH BE USED?

Managing work health and safety risks is an ongoing process that is triggered when any changes affect your work activities. You should work through the steps in this Code when:

- Starting a new business or purchasing a business.
- Changing work practices, procedures or the work environment.
- Purchasing new or used equipment or using new substances.
- Planning to improve productivity or reduce costs.
- New information about workplace risks becomes available.
- Responding to workplace incidents (even if they have caused no injury).
- Responding to concerns raised by workers, health and safety representatives or others at the workplace.
- Required by the WHS regulations for specific hazards.

It is also important to use the risk management approach when designing and planning products, processes or places used for work, because it is often easier and more effective to eliminate hazards before they are introduced into a workplace by incorporating safety features at the design stage.

2. STEP 1 – HOW TO IDENTIFY HAZARDS:

Identifying hazards in the workplace involves finding things and situations that could potentially cause harm to people. Hazards generally arise from the following aspects of work and their interaction:

- Physical work environment.
- Equipment, materials and substances used.
- Work tasks and how they are performed.
- Work design and management.

Table 1 below lists some common types of workplace hazards. Some hazards are part of the work process, such as mechanical hazards, noise or toxic properties of substances. Other hazards result from equipment or machine failures and misuse, chemical spills and structural failures.

A piece of plant, substance or a work process may have many different hazards. Each of these hazards needs to be identified. For example, a production line may have dangerous moving parts, noise, hazards associated with manual tasks and psychological hazards due to the pace of work.

Table 1 Examples of common hazards

Hazard	Potential harm
Manual tasks	Overexertion or repetitive movement can cause muscular strain
Gravity	Falling objects, falls, slips and trips of people can cause fractures, bruises, lacerations, dislocations, concussion, permanent injuries or death
Electricity	Potential ignition source. Exposure to live electrical wires can cause shock, burns or death from electrocution
Machinery and equipment	Being hit by moving vehicles, or being caught by moving parts of machinery can cause fractures, bruises, lacerations, dislocations, permanent injuries or death
Hazardous chemicals	Chemicals (such as acids, hydrocarbons, heavy metals) and dusts (such as asbestos and silica) can cause respiratory illnesses, cancers or dermatitis
Extreme temperatures	Heat can cause burns, heat stroke or fatigue Cold can cause hypothermia or frost bite
Noise	Exposure to loud noise can cause permanent hearing damage
Radiation	Ultra violet, welding arc flashes, micro waves and lasers can cause burns, cancer or blindness

Hazard	Potential harm
Biological	Micro-organisms can cause hepatitis, legionnaires' disease, Q fever, HIV/AIDS or allergies
Psychosocial hazards	Effects of work-related stress, bullying, violence and work-related fatigue

2.1 HOW TO FIND HAZARDS:

Inspect the workplace:

Regularly walking around the workplace and observing how things are done can help you predict what could or might go wrong. Look at how people actually work, how plant and equipment is used, what chemicals are around and what they are used for, what safe or unsafe work practices exist as well as the general state of housekeeping.

Things to look out for include the following:

- Does the work environment enable workers to carry out work without risks to health and safety (for example, space for unobstructed movement, adequate ventilation, lighting)?
- How suitable are the tools and equipment for the task and how well are they maintained?
- Have any changes occurred in the workplace which may affect health and safety?

Hazards are not always obvious. Some hazards can affect health over a long period of time or may result in stress (such as bullying) or fatigue (such as shiftwork). Also think about hazards that you may bring into your workplace as new, used or hired goods (for example, worn insulation on a hired welding set).

As you walk around, you may spot straightforward problems and action should be taken on these immediately, for example cleaning up a spill. If you find a situation where there is immediate or significant danger to people, move those persons to a safer location first and attend to the hazard urgently.

Make a list of all the hazards you can find, including the ones you know are already being dealt with, to ensure that nothing is missed. You may use a checklist designed to suit your workplace to help you find and make a note of hazards.

Consult your workers:

Ask your workers about any health and safety problems they have encountered in doing their work and any near misses or incidents that have not been reported.

Worker surveys may also be undertaken to obtain information about matters such as workplace bullying, as well as muscular aches and pains that can signal potential hazards.

Review available information:

Information and advice about hazards and risks relevant to particular industries and types of work is available from regulators, industry associations, unions, technical specialists and safety consultants.

Manufacturers and suppliers can also provide information about hazards and safety precautions for specific substances (safety data sheets), plant or processes (instruction manuals).

Analyse your records of health monitoring, workplace incidents, near misses, worker complaints, sick leave and the results of any inspections and investigations to identify hazards. If someone has been hurt doing a particular task, then a hazard exists that could hurt someone else. These incidents need to be investigated to find the hazard that caused the injury or illness.

3. STEP 2 – HOW TO ASSESS RISKS:

A risk assessment involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening. A risk assessment can help you determine:

- How severe a risk is.
- Whether any existing control measures are effective.
- What action you should take to control the risk.
- How urgently the action needs to be taken.

A risk assessment can be undertaken with varying degrees of detail depending on the type of hazards and the information, data and resources that you have available. It can be as simple as a discussion with your workers or involve specific risk analysis tools and techniques recommended by safety professionals.

3.1 WHEN SHOULD A RISK ASSESSMENT BE CARRIED OUT?

A risk assessment should be done when:

- There is uncertainty about how a hazard may result in injury or illness.
- The work activity involves a number of different hazards and there is a lack of understanding about how the hazards may interact with each other to produce new or greater risks.
- Changes at the workplace occur that may impact on the effectiveness of control measures.

A risk assessment is mandatory under the WHS Regulations for high risk activities such as entry into confined spaces, diving work and live electrical work.

Some hazards that have exposure standards, such as noise and airborne contaminants, may require scientific testing or measurement by a competent person to accurately assess the risk and to check that the relevant exposure standard is not being exceeded (for example, by using noise meters to measure noise levels and using gas detectors to analyse oxygen levels in confined spaces).

A risk assessment is not necessary in the following situations:

- Legislation requires some hazards or risks to be controlled in a specific way – these requirements must be complied with.
- A code of practice or other guidance sets out a way of controlling a hazard or risk that is applicable to your situation and you choose to use the recommended controls. In these instances, the guidance can be followed.
- There are well-known and effective controls that are in use in the particular industry, that are suited to the circumstances in your workplace. These controls can simply be implemented.

3.2 HOW TO DO A RISK ASSESSMENT:

All hazards have the potential to cause different types and severities of harm, ranging from minor discomfort to a serious injury or death.

For example, heavy liquefied petroleum gas (LPG) cylinders can cause muscular strain when they are handled manually. However, if the cylinder is damaged causing gas to leak which is then ignited, a fire could result in serious burns. If that leak occurs in a store room or similar enclosed space, it could result in an explosion that could destroy the building and kill or injure anyone nearby. Each of the outcomes involves a different type of harm with a range of severities, and each has a different likelihood of occurrence.

Work out how severe the harm could be:

To estimate the severity of harm that could result from each hazard you should consider the following questions:

- What type of harm could occur (e.g. muscular strain, fatigue, burns, laceration)? How severe is the harm? Could the hazard cause death, serious injuries, illness or only minor injuries requiring first aid?
- What factors could influence the severity of harm that occurs? For example, the distance someone might fall or the concentration of a particular substance will determine the level of harm that is possible. The harm may occur immediately something goes wrong (e.g. injury from a fall) or it may take time for it to become apparent (e.g. illness from long-term exposure to a substance).
- How many people are exposed to the hazard and how many could be harmed in and outside your workplace? For example, a mobile crane collapse on a busy construction site has the potential to kill or injure a large number of people.
- Could one failure lead to other failures? For example, could the failure of your electrical supply make any control measures that rely on electricity ineffective?
- Could a small event escalate to a much larger event with more serious consequences? For example, a minor fire can get out of control quickly in the presence of large amounts of combustible materials.

Work out how hazards may cause harm:

In most cases, incidents occur as a result of a chain of events and a failure of one or more links in that chain. If one or more of the events can be stopped or changed, the risk may be eliminated or reduced.

One way of working out the chain of events is to determine the starting point where things begin to go wrong and then consider: 'If this happens, what may happen next?' This will provide a list of events that sooner or later cause harm. See the case study in Appendix A.

In thinking about how each hazard may cause harm, you should consider:

- The effectiveness of existing control measures and whether they control all types of harm.
- How work is actually done, rather than relying on written manuals and procedures.
- Infrequent or abnormal situations, as well as how things are normally meant to occur.

Consider maintenance and cleaning, as well as breakdowns of equipment and failures of health and safety controls.

Work out the likelihood of harm occurring:

The likelihood that someone will be harmed can be estimated by considering the following:

- How often is the task done? Does this make the harm more or less likely?
- How often are people near the hazard? How close do people get to it?
- Has it ever happened before, either in your workplace or somewhere else? How often?

Table 2 contains further questions that can help you estimate likelihood.

You can rate the likelihood as one of the following:

- Certain to occur - expected to occur in most circumstances
- Very likely - will probably occur in most circumstances
- Possible – might occur occasionally
- Unlikely – could happen at some time
- Rare – may happen only in exceptional circumstances

The level of risk will increase as the likelihood of harm and its severity increases.

Table 2

Questions to ask in determining likelihood	Explanation and examples
How often are people exposed to the hazard?	A hazard may exist all of the time or it may only exist occasionally. The more often a hazard is present, the greater the likelihood it will result in harm. **For example:** • Meshing gears in an enclosed gearbox can cause crushing only if the gearbox is open during maintenance, and therefore the potential for harm will not occur very often. • Continuously lifting heavy boxes has the potential to cause harm whenever the work is done.
How long might people be exposed to the hazard?	The longer that someone is exposed to a hazard, the greater the likelihood that harm may result. **For example:** The longer a person is exposed to noisy work, the more likely it is that they will suffer hearing loss.
How effective are current controls in reducing risk?	In most cases the risks being assessed will already be subject to some control measures. The likelihood of harm resulting from the risk will depend upon how adequate and effective the current measures are. **For example:** Traffic management controls have been implemented in a warehouse to separate moving forklifts from pedestrians by using signs and painted lines on the floor. These controls may need to be upgraded to include physical barriers.
Could any changes in your organisation increase the likelihood?	The demand for goods or services in many organisations varies throughout the year. Changes in demand may be seasonal, depend on environmental conditions or be affected by market fluctuations that are driven by a range of events. Meeting increased demand may cause unusual loads on people, plant and equipment and systems of work. Failures may be more likely. **For example:** Inner city restaurants and bistros are very busy in the period prior to Christmas, placing extra demands on kitchen and serving staff. The increase in volume of food to be prepared and serving a larger number of patrons increases the potential for human error and the likelihood of harm.
Are hazards more likely to cause harm because of the working environment?	Examples of situations where the risk of injury or illness may become more likely: • Environmental conditions change. For example, work performed in high temperatures in a confined space increases the potential for mistakes

Questions to ask in determining likelihood	Explanation and examples
	because workers become fatigued more quickly; wet conditions make walkways and other things slippery. • People are required to work quickly. The rate at which work is done (e.g. number of repetitions) can over-stress a person's body or make it more likely that mistakes will be made. • There is insufficient light or poor ventilation.
Could the way people act and behave affect the likelihood of a hazard causing harm?	The possibility that people may make mistakes, misuse items, become distracted or panic in particular situations needs to be taken into account. The effects of fatigue or stress may make it more likely that harm will occur.
Do the differences between individuals in the workplace make it more likely for harm to occur?	People with disabilities may be more likely to suffer harm if the workplace or process is not designed for their needs. New or young workers may be more likely to suffer harm because of inexperience. People who do not normally work at the workplace will have less knowledge than employees who normally work there, and may be more likely to suffer harm. These people include contractors, visitors or members of the public.

4. STEP 3 – HOW TO CONTROL RISKS:

The most important step in managing risks involves eliminating them so far as is reasonably practicable, or if that is not possible, minimising the risks so far as is reasonably practicable.

In deciding how to control risks you must consult your workers and their representatives who will be directly affected by this decision. Their experience will help you choose appropriate control measures and their involvement will increase the level of acceptance of any changes that may be needed to the way they do their job.

There are many ways to control risks. Some control measures are more effective than others.

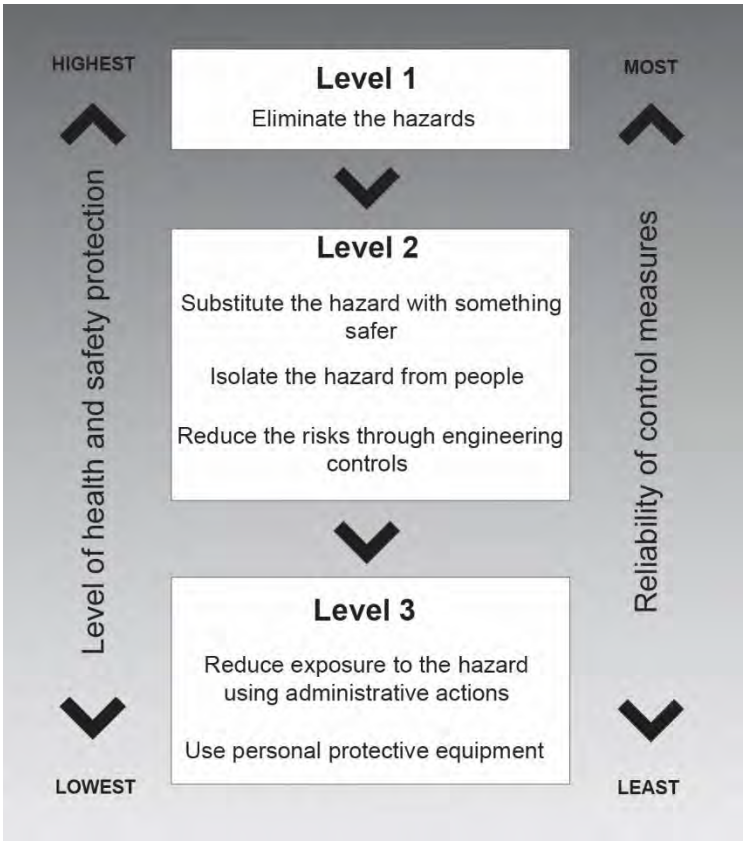
You must consider various control options and choose the control that most effectively eliminates the hazard or minimises the risk in the circumstances. This may involve a single control measure or a combination of different controls that together provide the highest level of protection that is reasonably practicable.

Some problems can be fixed easily and should be done straight away, while others will need more effort and planning to resolve. Of those requiring more effort, you should prioritise areas for action, focusing first on those hazards with the highest level of risk.

4.1 THE HIERARCHY OF RISK CONTROL:

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest as shown in Figure 2. This ranking is known as the hierarchy of risk control. The WHS Regulations require duty holders to work through this hierarchy when managing risk under the WHS Regulations.

Figure 2 The hierarchy of risk control



You must always aim to eliminate a hazard, which is the most effective control. If this is not reasonably practicable, you must minimise the risk by working through the other alternatives in the hierarchy.

Level 1 control measures:

The most effective control measure involves eliminating the hazard and associated risk. The best way to do this is by, firstly, not introducing the hazard into the workplace. For example, you can eliminate the risk of a fall from height by doing the work at ground level.

Eliminating hazards is often cheaper and more practical to achieve at the design or planning stage of a product, process or place used for work. In these early phases, there is greater scope to design out hazards or incorporate risk control measures that are compatible with the original design and functional requirements. For example, a noisy machine could be designed and built to produce as little noise as possible, which is more effective than providing workers with personal hearing protectors.

You can also eliminate risks by removing the hazard completely, for example, by removing trip hazards on the floor or disposing of unwanted chemicals.

It may not be possible to eliminate a hazard if doing so means that you cannot make the end product or deliver the service. If you cannot eliminate the hazard, then eliminate as many of the risks associated with the hazard as possible.

Level 2 control measures:

If it is not reasonably practicable to eliminate the hazards and associated risks, you should minimise the risks using one or more of the following approaches:

- **Substitute the hazard with something safer:**

  For instance, replace solvent-based paints with water-based ones.

- **Isolate the hazard from people:**

This involves physically separating the source of harm from people by distance or using barriers. For instance, install guard rails around exposed edges and holes in floors; use remote control systems to operate machinery; store chemicals in a fume cabinet.

- **Use engineering controls**:

  An engineering control is a control measure that is physical in nature, including a mechanical device or process. For instance, use mechanical devices such as trolleys or hoists to move heavy loads; place guards around moving parts of machinery; install residual current devices (electrical safety switches); set work rates on a production line to reduce fatigue.

Level 3 control measures

These control measures do not control the hazard at the source. They rely on human behaviour and supervision, and used on their own, tend to be least effective in minimising risks. Two approaches to reduce risk in this way are:

- **Use administrative controls**:

  Administrative controls are work methods or procedures that are designed to minimise exposure to a hazard. For instance, develop procedures on how to operate machinery safely, limit exposure time to a hazardous task, use signs to warn people of a hazard.

- **Use personal protective equipment (PPE):**

  Examples of PPE include ear muffs, respirators, face masks, hard hats, gloves, aprons and protective eyewear. PPE limits exposure to the harmful effects of a hazard but only if workers wear and use the PPE correctly.

Administrative controls and PPE should only be used:

- When there are no other practical control measures available (as a last resort).
- As an interim measure until a more effective way of controlling the risk can be used.
- To supplement higher level control measures (as a back-up).

Regulation 44-47: The WHS Regulations include specific requirements if PPE is to be used at the workplace, including that the equipment is:

- selected to minimise risk to health and safety
- suitable for the nature of the work and any hazard associated with the work
- a suitable size and fit and reasonably comfortable for the person wearing it
- maintained, repaired or replaced so it continues to minimise the risk
- used or worn by the worker, so far as is reasonably practicable.

A worker must, so far as reasonably able, wear the PPE in accordance with any information, training or reasonable instruction.

4.2 How to develop and implement control options:

Information about suitable controls for many common hazards and risks can be obtained from:

- Codes of practice and guidance material.
- Manufacturers and suppliers of plant, substances and equipment used in your workplace.
- Industry associations and unions.

In some cases, published information will provide guidance on the whole work process. In other cases, the guidance

may relate to individual items of plant or how to safely use specific substances. You may use the recommended control options if they suit your situation and eliminate or minimise the risk.

Developing specific control measures:

You may need to develop specific control measures if the available information is not relevant to the hazards and risks or circumstances at your workplace. This can be done by referring to the chain of events that were recorded during the risk assessment.

For each of the events in the sequence, ask: "What can be done to stop or change the event occurring?" An example of this approach is shown in Appendix A.

Working through the events in the sequence will give you ideas about all possible ways to eliminate or minimise the risk. There may be more than one solution for each of the events.

The control option you choose should be:

- One that provides the highest level of protection for people and is the most reliable – that is, controls located towards the top of the hierarchy in Figure 2.
- Available – that is, it can be purchased, made to suit or be put in place.
- Suitable for the circumstance in your workplace – that is, it will work properly given the workplace conditions, work process and your workers.

Where the hazard or risk has the potential to cause death, serious injury or illness, more emphasis should be given to those controls that eliminate or reduce the level of harm, than those that reduce the likelihood of harm occurring.

Make sure that your chosen solution does not introduce new hazards.

Cost of control measures:

All risks can be controlled and it is always possible to do something, such as stopping the activity or providing instructions to those exposed to the risk. There will normally be a number of different options between these two extremes. Cost (in terms of time and effort as well as money) is just one factor to consider when determining the best control option.

The cost of controlling a risk may be taken into account in determining what is reasonably practicable, but cannot be used as a reason for doing nothing.

The greater the likelihood of a hazard occurring and/or the greater the harm that would result if the hazard or risk did occur, the less weight should be given to the cost of controlling the hazard or risk.

If two control measures provide the same levels of protection and are equally reliable, you can adopt the least expensive option.

Cost cannot be used as a reason for adopting controls that rely exclusively on changing people's behaviour or actions when there are more effective controls available that can change the risk through substitution, engineering or isolation.

Implementing controls:

The control measures that you put into operation will usually require changes to the way work is carried out due to new or modified equipment or processes, new or different chemicals or new personal protective equipment. In these situations, it is usually necessary to support the control measures with:

- **Work procedures:**

  Develop a safe work procedure that describes the task, identifies the hazards and documents how the task is to be performed to minimise the risks.

- **Training, instruction and information:**

Train your workers in the work procedure to ensure that they are able to perform the task safely. Training should require workers to demonstrate that they are competent in performing the task according to the procedure. It is insufficient to simply give a worker the procedure and ask them to acknowledge that they understand and are able to perform it. Training, instruction and information must be provided in a form that can be understood by all workers.

Information and instruction may also need to be provided to others who enter the workplace, such as customers or visitors.

- **Supervision:**

  The level of supervision required will depend on the level of risk and the experience of the workers involved. High levels of supervision are necessary where inexperienced workers are expected to follow new procedures or carry out difficult and critical tasks.

You may prepare a risk register that identifies the hazards, what action needs to be taken, who will be responsible for taking the action and by when. An example is provided at Appendix B.

4.3 HOW TO ENSURE THAT CONTROLS REMAIN EFFECTIVE:

The following actions may help you monitor the control measures you have implemented and ensure that they remain effective:

- **Accountability for health and safety** – Accountability should be clearly allocated to ensure procedures are followed and maintained. Managers and supervisors should be provided with the authority and resources to implement and maintain control measures effectively.
- **Maintenance of plant and equipment** – This will involve regular inspection and testing, repair or replacement of damaged or worn plant and equipment. It includes checking that any control measures are suitable for the nature and duration of work, are set up and used correctly.
- **Up-to-date training and competency** – Control measures, particularly lower level controls, depend on all workers and supervisors having the appropriate competencies to do the job safely. Training should be provided to maintain competencies and to ensure new workers are capable of working safely.
- **Up-to-date hazard information** – Information about hazards, such as plant and substances, may be updated by manufacturers and suppliers and should be checked to make sure controls are still relevant. New technology may provide more effective solutions than were previously available. Changes to operating conditions or the way activities are carried out may also mean that control measures need to be updated.
- **Regular review and consultation** – Control measures are more effective where there is regular review of work procedures and consultation with your workers and their representatives.

5. STEP 4 – HOW TO REVIEW CONTROLS:

The control measures that you put in place should be reviewed regularly to make sure they work as planned. Don't wait until something goes wrong.

There are certain situations where you must review your control measures under the WHS Regulations and, if necessary, revise them. A review is required:

- When the control measure is not effective in controlling the risk.
- Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
- If a new hazard or risk is identified.

- If the results of consultation indicate that a review is necessary.
- If a health and safety representative requests a review.

You may use the same methods as in the initial hazard identification step to check controls. Consult your workers and their health and safety representatives and consider the following questions:

- Are the control measures working effectively in both their design and operation?
- Have the control measures introduced new problems?
- Have all hazards been identified?
- Have new work methods, new equipment or chemicals made the job safer?
- Are safety procedures being followed?
- Has instruction and training provided to workers on how to work safely been successful?
- Are workers actively involved in identifying hazards and possible control measures? Are they openly raising health and safety concerns and reporting problems promptly?
- Is the frequency and severity of health and safety incidents reducing over time?
- If new legislation or new information becomes available, does it indicate current controls may no longer be the most effective?

If problems are found, go back through the risk management steps, review your information and make further decisions about risk control. Priority for review should be based on the seriousness of the risk. Control measures for serious risks should be reviewed more frequently.

Quality assurance processes may be used if you design, manufacture or supply products used for work to check that the product effectively minimises health and safety risks. Obtain feedback from users of the product to determine whether any improvements can be made to make it safer.

Case studies demonstrating how to manage work health and safety risks in consultation with workers are at Appendix C.

6. KEEPING RECORDS:

Keeping records of the risk management process demonstrates potential compliance with the WHS Act and Regulations. It also helps when undertaking subsequent risk assessments.

Keeping records of the risk management process has the following benefits. It:

- Allows you to demonstrate how decisions about controlling risks were made.
- Assists in targeting training at key hazards.
- Provides a basis for preparing safe work procedures.
- Allows you to more easily review risks following any changes to legislation or business activities.
- Demonstrates to others (regulators, investors, shareholders, customers) that work health and safety risks are being managed.

The detail and extent of recording will depend on the size of your workplace and the potential for major work health and safety issues. It is useful to keep information on:

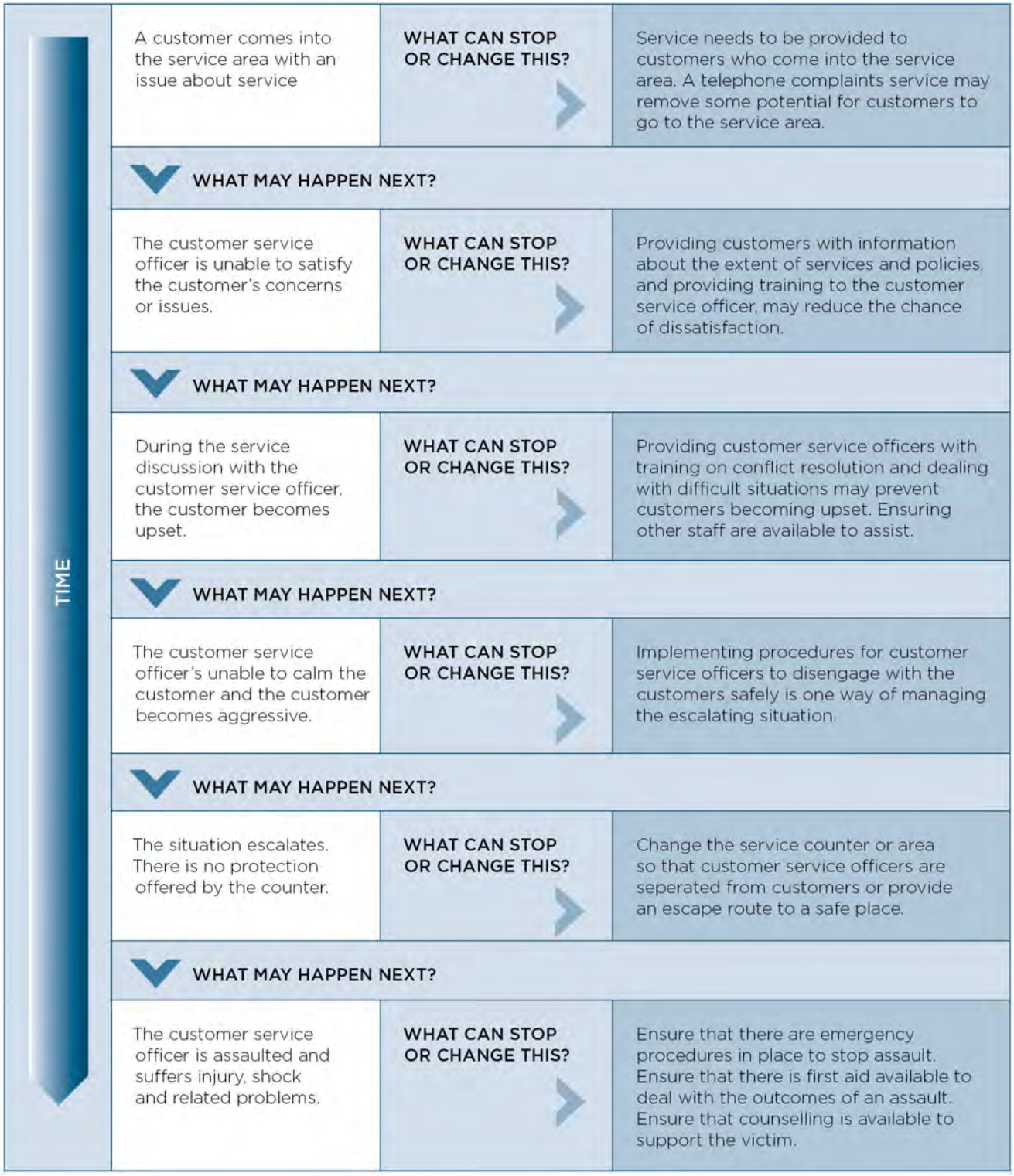
- The identified hazards, assessed risks and chosen control measures (including any hazard checklists, worksheets and assessment tools used in working through the risk management process).
- How and when the control measures were implemented, monitored and reviewed.

- Who you consulted with.
- Relevant training records.
- Any plans for changes.

There are specific record-keeping requirements in the WHS Regulations for some hazards, such as hazardous chemicals. If such hazards have been identified at your workplace, you must keep the relevant records for the time specified.

You should ensure that everyone in your workplace is aware of record-keeping requirements, including which records are accessible and where they are kept.

APPENDIX A – ASSESSING HOW THINGS GO WRONG:



APPENDIX B – RISK REGISTER

Location:					Date:			
Hazard	**What is the harm that the hazard could cause?**	**What is the likelihood that the harm would occur?**	**What is the level of risk?**	**How effective are the current controls?**	**What further controls are required?**	**How will the controls be implemented?**		
						Action by	**Due Date**	**When Completed**

Location:					Date:			
Hazard	**What is the harm that the hazard could cause?**	**What is the likelihood that the harm would occur?**	**What is the level of risk?**	**How effective are the current controls?**	**What further controls are required?**	**How will the controls be implemented?**		
						Action by	**Due Date**	**When Completed**

APPENDIX C – CASE STUDIES:

Case Study 1:

Two years ago, the Burbs Municipal Council implemented a number of written health and safety procedures used to train workers how to carry out particular tasks safely. As these procedures had not been reviewed since their implementation, the Safety Manager (SM) implemented a new approach to not only review these procedures but also promote health and safety more widely across the organisation by encouraging staff involvement and co-operation.

To do this, the SM established and facilitated safety workshops each Friday for an hour where a team would review a particular task and its procedures to identify hazards, assess risks and options to control these. The team included management, council workers, the respective health and safety representative and any contractors engaged to carry out the work.

The SM's approach was to facilitate the workshops but then hand this role over to the relevant team supervisor, who would then facilitate future meetings to review other tasks conducted by the workers. The written health and safety procedures were not used in the workshops as the SM wanted to learn more about the hazards, risks and controls from the workers without prompting. However, any changes discussed and agreed during the meeting would be included in the revised written safety procedures.

The first safety workshop was conducted in the Parks and Gardens Branch and involved management, workers, their health and safety representatives and a representative from the maintenance shop that supplied the Parks and Gardens Branch with a variety of vehicles and equipment.

Safety workshop – 20 August 2010	
Team	Parks and Gardens Branch
Task being reviewed	Cleaning of the toilets in the council's parks
Description of task	Undertaken by two workers each Monday morning in a Council truck who would clean the eight toilet blocks across the municipality
What does the task involve?	<u>At the depot</u>: • Load the truck with the compressor and pressure hose along with cleaning chemicals and materials
	<u>At the park</u>: • Open toilet block • Clean toilets • Unload compressor and pressure hose, place them in toilet block and attach to tap, turn on compressor and hose walls and floors • Put compressor and pressure hose along with cleaning gear back on truck • Dry out toilet block floor by sweeping • Leave park and go to next one

In order to gather advice and information from the team, the SM asked the following questions and shared the responses by writing them on a whiteboard or butchers paper:

	What hazards are encountered when doing the task?	*What risks do these pose to the health and safety?*	*How are these hazards and risks controlled?*
Plant	• Truck • Compressor and pressure hose	• Truck - faulty truck could cause accident and cause injuries to workers and others • Compressor and pressure hose - faulty fuel line in compressor could cause burns and injuries through fire or explosion	• Truck and compressor have maintenance schedule • Checklist for visual inspection for all plant before it leaves depot • Reporting and tagging system for all defective plant
Manual Handling	• Loading and unloading the compressor • Carrying the compressor to and from the toilet block	• Heavy load can cause sprains, strains, back injuries or fractures and cuts if dropped on foot	• Compressor has handles fitted to assist in lifting and carrying • Two persons required to lift and carry compressor • Only workers who have been trained able to lift and carry compressor
Chemical	• Cleaning agents used to clean toilets and basins	• Skin irritation, rashes and illness caused by exposure to chemicals and their vapours in confined space	• Only non-toxic cleaning agents used • Gloves provided to avoid skin contact
Noise	• Operating the compressor in a closed space with hard surfaces	• Hearing loss from prolonged exposure to the noise levels generated by the compressor	• Hearing protection provided for wearing when hosing out the toilet block
Slips, trips and falls	• Wet floor when hosing out the toilet block.	• Cuts and bruises caused by slipping on wet surface	• Safety boots were provided that had slip-resistant soles

Many staff present at the workshop indicated it was a waste of time as everything discussed was covered by the health and safety procedure, which they knew backwards. The SM acknowledged this concern but then asked the team whether the way the task was being conducted could be changed to improve health and safety.

One staff member raised concerns about lugging the compressor around 16 times every Monday morning and that doing this tempted them to call in sick. The SM was curious about this and asked why it was necessary to take the compressor off the truck and place it in the toilet. The workers explained that the length of the hose on the pressure spray was short and could only be operated with the compressor in the toilet block.

After hearing this, the representative from the maintenance shop who supplied the compressor mentioned that he could attach a 10-metre hose to the compressor, which would mean the compressor would not have to be taken off the truck.

The team agreed this was a good idea and would eliminate the manual handling risks associated with lifting and carrying the compressor. The SM asked what other impacts this would have. The team agreed this would also reduce the noise as the compressor would now be outside the toilet block, but that there could be new risks associated with handling and storing a 10-metre long hose. The team agreed to trial the new hose. It was then installed with a hose handling system.

Following the workshop, the SM asked the supervisor to ensure the modifications were made within two weeks and to revise the procedures and have them checked by the health and safety representative and workers.

Case Study 2:

Jane Smith has been working at the local grocery store for the last 12 months. She had recently taken on a new role as the bakery supervisor and was eager to review the work activities and safety procedures. In preparing for the review, Jane considered how she would conduct the review and who she should speak with.

As a first step, Jane identified the different activities and tasks that were carried out by the workers. These included:

- Preparing a number of different products such as bread, cakes, slices and doughnuts.
- Cleaning items used in product preparation.
- General housekeeping.

The next step was to analyse what was involved with each activity. Jane spent three mornings that week with the four bakers who worked in the bakery department. She talked to them about the work activities and what they thought could be changed to improve the safety of the workplace. One of the bakers had been working in the store for over 10 years, whilst another had been working for over 25 years. The other two bakers were apprentices and had only been working with the store for around six months.

From these discussions, Jane identified a number of key tasks the bakers carried out every day when preparing the baked products:

- Moving the ingredients from their storage locations to the area of use.
- Mixing the ingredients together using specialised mixers.
- Transferring the mixture to the container for baking.
- Putting them in the oven and removing them from the oven.
- Slicing and decorating.
- Packaging the products.

During an inspection of the bakery, Jane and the bakers identified a number of hazards, including the following:

- The doughnut mixer was not guarded and the mixing bowl could be accessed when the machine was operating.
- The concrete floors were slippery in the mixing room and flour was spilt where the bakers walked.
- Low lighting in the food preparation area.
- There was narrow access and restricted movement in the storage area where the flour bags were kept.

Jane and the bakers discussed the risks associated with each of the hazards and what could be done to control these risks. In relation to the unguarded mixer, one of the bakers suggested purchasing or hiring a new model with an interlocking guard. After considering the ideas of the bakers, Jane completed the following risk register:

XYZ Grocery Store Pty Ltd

Work area: Bakery department

Form completed by: Jane Smith (Bakery supervisor)

Date form completed: 05/11/2010

Hazard identification:

Hazard: Doughnut mixer not guarded and mixing bowl can be accessed when machine is operating.

Risk Assessment:

What is the harm the hazard could cause: The person operating the mixer could be injured by the moving parts if their hand slipped in while the machine was operating. Hand could be cut or could even lose a finger.

What is the likelihood of this happening: This machine is used several times a day. Two of the workers have not been working in the bakery for a long time and are not very experienced in using the equipment.

Persons at risk: All four bakers who operate the machine.

Existing control measure: Staff follow policy and operating instructions to use the mixer safely – not very effective because it relies on staff keeping hands away from the dangerous parts.

Consequence: Serious injuries

Likelihood: Very likely

Outcome: High risk - the mixer must not be used again until the risk has been controlled.

Control measures:

Possible control options:

- **Elimination** – Eliminating the use of the mixer completely will mean the business cannot continue to sell baked products as the dough cannot be mixed. Business revenue will suffer.
- **Substitution** – Use of the mixer could be substituted by hand mixing the dough. One day's production will be lost in the change over. This method can only be considered an interim option as it is not sustainable for more than a day or two with present staff. However, part time staff could be hired to mix the dough. Business income would be reduced and impact on revenue. Alternatively, the mixer could be replaced by purchasing a new, safer machine with a built-in guard.
- **Engineering** – The mixer could be modified by adding an interlocking guard. A mixer could be hired for the period the old mixer is in for repairs. One day's production will be lost in this option. The modifications are estimated to cost $1600. Other costs included are: one day lost in production plus hire of substitute machine for approximately 10 days and transport. Estimated cost is less than $6000.
- **Administrative or PPE** – All staff told to keep hands away from the mixing bowl while it is in use. Only the more experienced bakers are to operate the mixer.

Preferred control option: Purchase a new mixer, which would not cost much more than having the old one modified. Mixing to be done by hand while waiting for replacement mixer to arrive. The costs involved are outweighed by worker safety and this option eliminates the risk of injury.

Implementation

Associated activities	Resources required	Person(s) responsible	Sign off and date
New mixer to be purchased. Mixing to be done by hand while waiting for new mixer. May require staff working more hours	Less than $6000	Jane Smith – Bakery supervisor	J Smith 9/11/10
Develop new work procedures Provide training to bakers on using the new machine	3 hours	Jane Smith – Bakery supervisor	J Smith 20/12/10
Review **Scheduled review date: 31 January 2011**			
Are the control measures in place? • Yes – the new machine has an interlocking guard and bakers have been provided with training on how to use the machine in accordance with the manufacturer's instructions.			
Are the controls eliminating or minimising the risk? • Yes – the interlocking guard prevents people from putting their hand in the mixing bowl.			
Are there any new problems with the risk? • No.			

Jane repeated these steps for each hazard that she identified. The review of the work activities and the implemented control measures improved the safety in the bakery department at the grocery store.

#Environment & Facilities

MANAGING THE WORK ENVIRONMENT AND FACILITIES

Code of Practice

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FOREWORD:

This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

SCOPE AND APPLICATION:

This Code applies to all types of work and all workplaces covered by the WHS Act, including workplaces that are mobile, temporary and remote.

It provides practical guidance for persons conducting a business or undertaking on how to provide and maintain a physical work environment that is without risks to health and safety. This Code covers:

- The physical work environment, such as workspace, lighting and ventilation.
- Facilities for workers, including toilets, drinking water, washing and dining areas, change rooms, personal storage and shelter.
- Remote and isolated work.
- Emergency plans.

This Code takes into account that new buildings and major renovations must also comply with the National Construction Code of Australia which specifies certain requirements, for example the number of toilets that need to be provided in buildings used as workplaces.

For more specific information about providing facilities at construction sites, refer to the:

Code of Practice: *Managing Risks in Construction Work*.

Guidance on the provision of first aid facilities can be found in the:

Code of Practice: *First Aid in the Workplace*.

HOW TO USE THIS CODE OF PRACTICE:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to sections of the WHS Act and the Regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION

1.1 WHO HAS DUTIES IN RELATION TO THE WORK ENVIRONMENT AND FACILITIES?

A **person conducting a business or undertaking** has the primary duty under the WHS Act to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

The WHS Regulations place more specific obligations on a person conducting a business or undertaking in relation to the work environment and facilities for workers, including requirements to:

- Ensure, so far as is reasonably practicable, that the layout of the workplace, lighting and ventilation enables workers to carry out work without risks to health and safety.
- Ensure, so far as is reasonably practicable, the provision of adequate facilities for workers, including toilets, drinking water, washing and eating facilities.
- Manage risks associated with remote and isolated work.
- Prepare emergency plans.

Persons conducting a business or undertaking who have management or control of a workplace must ensure, so far as is reasonably practicable, that the workplace, the means of entering and exiting the workplace and anything arising from the workplace is without health and safety risks to any person.

This means that the duty to provide and maintain a safe work environment and adequate facilities may be shared between duty holders, for example a business leasing premises will share the duty with the landlord or property manager of the premises. In these situations the duty holders must, so far as is reasonably practicable, consult, co-operate and co-ordinate activities with each other.

Persons who design and construct buildings and structures that are intended to be used as workplaces must ensure, so far as is reasonably practicable, that the building or structure is without risks to health and safety.

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to provide and maintain a safe work environment and adequate facilities for workers.

Workers have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace.

1.2 IDENTIFYING WHAT FACILITIES ARE NEEDED:

Decisions about workplace facilities and the work environment will depend on the industry the business is operating in, the nature of the work carried out as well as the size and location of the workplace and the number and composition of workers at the workplace.

The requirements in the National Construction Code of Australia will also determine what facilities are required for new buildings.

Consulting workers:

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Section 47: The WHS Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

You must consult your workers when proposing any changes to the work environment that may affect their health and safety and when making decisions about what facilities are needed (for example, the number and location of toilets). The consultation should also cover things such as access, cleaning and maintenance of the facilities.

If the facilities are already provided at the workplace, you should consult your workers and their health and safety representatives when there are any changes that may affect the adequacy of the facilities. This will help you determine if you need to change or expand your facilities.

Consulting, co-operating and coordinating activities with other duty holders:

Section 46: The WHS Act requires that you consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved in the same activities or who share the same workplace. In these situations, you should exchange information to find out who is doing what and work together in a co-operative and coordinated way so that all risks are eliminated or minimised so far as is reasonably practicable.

For example, if you are a tenant in a building, you will share responsibility for providing a safe physical work environment and facilities with the property manager or building owner, and you should therefore discuss your requirements regarding these matters with them. This would include checking that they have arrangements in place for the proper maintenance of plant such as air-conditioning systems and facilities such as toilets.

Further guidance on consultation is available in the:

Code of Practice: *Work Health and Safety Consultation, Co-ordination and Co-operation*.

The nature of the work

- To understand the nature of the work activities and the type of hazards involved, the following questions should be considered:
- Does the work involve exposure to infectious material or contaminants? If so, workers may need access to shower facilities before they leave the workplace.
- Do workers need to change out of their clothes? If so, they may need change rooms and appropriate personal storage.
- Is the work mostly conducted standing or seated? If so, floor coverings and seats should be considered.
- Is the work sedentary or physically active? If so, this may affect the ideal comfortable air temperature.
- Is the work done in shifts? If so, cleaning and maintenance schedules may need to take into account the times when the facilities are used.
- Workers undertaking different work within the same workplace may also have different requirements for facilities depending on the work they do and the equipment they use.

Size, location and nature of the workplace:

The type of facilities needed also depends on the size, location and nature of the workplace. For example, whether the work is carried out in a building or structure, or whether work is performed outdoors or in a workplace belonging to another business should be taken into consideration. Some workers may be mobile, for example sales representatives, tradespeople or visiting health care workers. The following questions should be considered:

- Does the workplace cover an extensive area, or is work undertaken in a single location?
- Do the workers travel between workplaces, to numerous work sites or to other locations?
- Is the workplace permanent or temporary?
- Is the workplace close to appropriate welfare facilities?
- Will the facilities be available at the times workers need to use them, for example during a night shift?
- Is the means of access safe?

Number and composition of the workforce:

The number of workers at the workplace will determine the size and type of facilities required. For example, calculating the number of toilets and hand washing facilities should take account of the number of workers who usually use them at the same time.

Facilities should provide privacy and security for men and women. The requirements of workers with any particular needs (for example, pregnant or lactating women) or disabilities should also be addressed in the design of the workplace.

1.3 MAINTAINING THE WORK ENVIRONMENT AND FACILITIES:

The work environment should be maintained so that it remains in a clean and safe condition. Broken or damaged furniture, fixtures and fittings, including chairs, plumbing, air-conditioning and lighting should be repaired promptly.

Facilities should be clean, safe, accessible and in good working order. Consumable items, including soap and toilet paper, should be replenished regularly. Equipment and furniture such as toasters, fridges, lockers or seating should be maintained in good working order.

Workplaces and facilities should be cleaned regularly, usually on a daily or weekly basis. The cleaning schedule of facilities such as dining areas, toilets, hand basins and showers should take into account shift work, the type of work performed, the likelihood of contamination and the number of workers using them.

Appendix A may be used as a checklist to help you review the work environment and the adequacy of facilities provided to workers.

2. THE WORK ENVIRONMENT

Regulation 40: A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that:

- The layout of the workplace allows, and is maintained to allow, persons to enter and exit the workplace and move within it safely, both under normal working conditions and in an emergency.
- Work areas have space for work to be carried out safely.
- Floors and other surfaces are designed, installed and maintained to allow work to be carried out safely.
- Lighting enables each worker to carry out work safely, persons to move around safely and safe evacuation in an emergency.
- Ventilation enables workers to carry out their work without risk to their health and safety.
- Workers exposed to extremes of heat or cold are able to carry out work without risk to their health and safety

- Work in relation to or near essential services (such as gas, electricity, water, sewerage and telecommunications) do not affect the health and safety of persons at the workplace.

2.1 ENTRY AND EXIT:

The means of entry and exit to and from the workplace must be safe. This may include ensuring that workers with special needs or disabilities can safely enter and leave the workplace.

Entries and exits should be slip-resistant under wet and dry conditions.

Aisles and walkways should be at least 600 mm wide and kept free of furniture or other obstructions at all times. Where it is necessary to clearly define entry and exit routes, the boundaries of the route should be marked by a permanent line of white, yellow or other contrasting colour at least 50 mm wide or by glowing markers. Entry and exit routes, stairs and walkways should be adequately lit.

Open sides of staircases should be guarded with an upper rail at 900 mm or higher and a lower rail. A handrail should be provided on at least one side of every staircase. Additional handrails may be needed down the centre of wide staircases. Further information is available in AS 1657 – *Fixed platforms, walkways, stairways and ladders - Design, construction and installation.*

Separate entries and exits for mobile equipment (for example, forklifts or trucks) and pedestrians should be provided to minimise the risk of persons being hit by moving vehicles. If people and vehicles have to share a traffic route, use kerbs, barriers or clear markings to designate a safe walkway. Doors and gates should be fitted with safety devices if necessary. Doors on main traffic routes should have a transparent viewing panel (unless they are fire-rated doors).

Power-operated doors and gates should have safety features to prevent people being struck or trapped. Upward-opening doors or gates should be fitted with an effective device (such as counterbalance springs or ratchet devices) to prevent them falling back.

The location of exits should be clearly marked and signs should be posted to show the direction to exit doors to aid emergency evacuation.

2.2 HOUSEKEEPING:

An untidy workplace can cause injuries in particular, injuries resulting from slips and trips, therefore good housekeeping practices are essential for all workplaces. For example:

- Spills on floors should be cleaned up immediately.
- Walkways should be kept clear of obstructions.
- Work materials should be neatly stored.
- Any waste should be regularly removed.

It will be much easier to keep the workplace clean and tidy if it is well laid out with sufficient space for storage and for the movement of people. Space close to workstations should be allocated to allow for the storage of tools and materials that are used frequently, for example providing racks for hand tools above workbenches.

Tidiness throughout the working day can be difficult to maintain in industries where there is rapid production of finished goods and/or waste. In these situations, training all workers in good housekeeping procedures and their co-operation with these procedures is necessary to keep the workplace tidy.

Suitable containers for waste should be conveniently located and regularly emptied.

While it may be reasonable to expect workers to leave their immediate work area in a clean and tidy condition at the end of the working day, other options for carrying out the general cleaning of the workplace should be considered, for example engaging cleaners.

2.3 WORK AREAS:

The layout of work areas should be designed to provide sufficient clear space between furniture, fixtures and fittings so that workers can move about freely without strain or injury and also evacuate quickly in case of an emergency. Space for aisles, passages and access to other areas is needed in addition to the space around workstations.

In determining how much space is needed, the following should be considered:

- The physical actions needed to perform the task.
- The need to move around while working.
- Whether the task is to be performed from a sitting or standing position.
- Access to workstations.
- The equipment to be handled and the personal protective equipment that may be worn to perform the work.

Environmental factors including heat or noise may require an increase to the space, as will work activities that involve manual tasks or the use of tools such as knives where the risk of injury is increased due to close working conditions.

Further guidance in relation to manual tasks and the layout of work areas is available in the:

Code of Practice: *Hazardous Manual Tasks*.

2.4 FLOORS AND OTHER SURFACES:

Floor surfaces should be suitable for the work area. The choice of floor surfaces or coverings will depend on the type of work carried out at the workplace, as well as the materials used during the work process, the likelihood of spills and other contaminants, including dust, and the need for cleaning.

Floors should be inspected regularly and maintained to eliminate slip and trip hazards. Common examples of hazards include trailing cables, uneven edges or broken surfaces, gratings or covers, loose mats or carpet tiles. Floor surfaces require sufficient grip to prevent slipping, especially in areas that may become wet or contaminated. Cleaning methods should also take account of the potential for slips, which may be increased by the use of some cleaning agents.

Workers who undertake static standing work should be protected from discomfort and the jarring effects of direct contact with concrete, masonry or steel floors, for example, by providing carpet, cushion-backed vinyl, shock-absorbent underlay, anti-fatigue matting, grates or duckboards.

Generally carpet is preferred in office areas to provide a comfortable walking surface and to reduce noise, reflected light from polished floor surfaces and the risk of slips and falls. Selection of wool mix carpets reduces the build-up of static electricity which can give a mild electric shock. Carpets should be properly laid without loose edges or ripples and should be well maintained.

If tasks require the use of wheeled equipment (for example, trolleys) the floor covering should be selected to minimise friction and resistance.

Some floor surfaces can become hazardous in certain work situations. For example, machining of metals can produce hot scrap and requires a surface safe from fire risk.

Floors and any other surfaces, such as mezzanines or platforms that people may walk on, must be strong enough to support loads placed on them.

2.5 WORKSTATIONS:

It may be necessary to determine whether the work is best carried out in a seated or standing position (or a combination of the two). Ideally, there should be a mix of seated and standing tasks – neither prolonged sitting nor standing is desirable. Workers should be consulted when carrying out this assessment.

Workstations should be designed so that workers can carry out their work in a comfortable, upright position with shoulders relaxed and upper arms close to the body. Different workers require different working heights so it is best to provide adjustable workstations to make the work height suitable for the person and the task.

Many tasks are best done in a seated position, for example screen-based work, fine component assembly or tasks involving the frequent use of foot controls. For tasks undertaken in a seated position, workers should be provided with seating that:

- provides good body support, especially for the lower back
- provides foot support, preferably with both feet flat on the floor, otherwise a footrest should be provided
- allows adequate space for leg clearance and freedom of movement.

Chairs should be fully adjustable to accommodate different sized workers (with seat height, back rest height and back rest tilt adjustments) and should not tip or slip – a five-point base is the most stable. Castors should be used on carpet and glides or braked castors on hard surfaces.

Some standing tasks may be carried out using a sit/stand chair, for example some process or inspection work. This means that workers can support themselves on the chair while still carrying out the standing task. If the job is primarily carried out while standing, but the nature of the work allows workers to sit from time to time, appropriate seating should be provided. This allows workers to vary their position between sitting and standing.

2.6 LIGHTING:

Sufficient lighting must be provided, whether it is from a natural or artificial source, to allow safe movement around the workplace and to allow workers to perform their job without having to adopt awkward postures or strain their eyes to see.

The following factors should be taken into account:

- the nature of the work activity
- the nature of hazards and risks in the workplace
- the work environment
- illumination levels, including both natural and artificial light
- the transition of natural light over the day
- glare
- contrast
- reflections.

Additional lighting may be needed for some types of work or at places of particular risk (such as crossing points on traffic routes). Table 1 provides guidance on the recommended illumination levels for various types of tasks, activities or interiors.

Different lighting levels may be needed for different times of the day. Too much lighting can result in glare. Measures to prevent low or excessive levels of lighting, glare or reflection include:

- Providing additional lighting, such as a lamp on a movable arm.
- Changing the position of existing lights.
- Changing the location of the workstation.
- Increasing or decreasing the number of lights.
- Changing the type of lighting used e.g. from white light to blue light.
- Changing the diffusers or reflectors on existing lights.
- Using screens, visors, shields, hoods, curtains, blinds or external louvers to reduce reflections, shadows and glare.

Emergency lighting must be provided for the safe evacuation of people in the event of an emergency.

Table 1 Recommended illumination levels[1]

Class of task	Recommended illuminance (lux)	Characteristics of the activity / interior	Examples of types of activities / interiors
Movement and orientation	40	For little-used interiors with visual tasks limited to moving around.	Corridors; cable tunnels; indoor storage tanks; walkways.
Rough intermittent	80	For interiors used intermittently, with visual tasks limited to movement, orientation and coarse detail.	Workers change and locker rooms; live storage of bulky materials; dead storage of materials needing care; loading bays.
Normal range of tasks and workplaces			
Simple	160	Continuously occupied interior with visual tasks (coarse detail only.) Occasional reading of clearly printed documents for short periods.	Waiting rooms; entrance halls; canteens; rough checking of stock; rough bench and machine work; general fabrication of structural steel; casting concrete; automated process monitoring; turbine halls.
Ordinary or moderately easy	240	Continuously occupied interiors with moderately easy visual tasks with high contrasts or large detail.	School boards and charts; medium woodworking; food preparation; counters for transactions; computer use.
Moderately difficult	320	Areas where visual tasks are moderately difficult with moderate detail or with low contrasts.	Routine office tasks (e.g. reading, writing, typing, enquiry desks.)
	400		Inspection of medium work; fine woodwork; enquiry points; car assembly.
Difficult	600	Areas where visual tasks are difficult with small detail or with low contrast.	Drawing boards; most inspection tasks; proofreading; fine machine work; fine painting and finishing; colour matching.
Very difficult	800	Areas where visual tasks are very difficult with very small detail or with very low contrast.	Fine inspection; plant retouching; fine manufacture; grading of dark materials; colour matching of dyes.

2.7 AIR QUALITY:

[1] Source: AS/NZS 1680.1: 2006 – Interior workplace lighting

Workplaces should be adequately ventilated. Fresh, clean air should be drawn from outside the workplace, uncontaminated by discharge from flues or other outlets, and be circulated through the workplace.

Workplaces inside buildings may have natural ventilation, mechanical ventilation (fans or extraction units) or air-conditioning. An air-conditioning system should:

- Provide a comfortable environment in relation to air temperature, humidity and air movement.
- Prevent the excessive accumulation of odours.
- Reduce the levels of respiratory by-products, especially carbon dioxide, and other indoor contaminants that may arise from work activities.
- Supply an amount of fresh air to the workplace, exhaust some of the stale air as well as filter and recirculate some of the indoor air.

Natural ventilation should consist of permanent openings, including windows and doors, that:

- In total are the size of at least five per cent of the floor area of the room.
- Are open to the sky, an open covered area or an appropriately ventilated adjoining room.

Natural ventilation may be assisted by mechanical ventilation.

Enclosed workplaces should be supplied with comfortable rates of air movement (usually between 0.1 m and 0.2 m per second).

Air-conditioning and other ventilation systems should be regularly serviced and maintained in accordance with manufacturer's instructions. Cooling towers that form part of many air-conditioning systems may be a favourable environment for Legionella bacteria if they are not properly designed and maintained. Exposure to these bacteria can cause the potentially fatal Legionnaire's disease. Cooling towers should be designed, installed and maintained in accordance with AS/NZS 3666 – Air handling and water systems of buildings.

Further information regarding air quality is available in AS 1668.2 – The use of ventilation and air-conditioning in buildings.

Work processes that release harmful levels of airborne contaminants (e.g. lead fumes, acid mist, solvent vapour) will require specific control measures to remove them at the source, such as local exhaust ventilation.

Regulation 49-50: A person conducting a business or undertaking must ensure that no-one at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the exposure standard for the substance or mixture. This may require air monitoring to be carried out.

2.8 HEAT AND COLD:

Workers carrying out work in extreme heat or cold must be able to carry out work without a risk to their health and safety so far as is reasonably practicable.

It is important to distinguish between a condition that threatens health and safety, and a feeling of discomfort.

The risk to the health of workers increases as conditions move further away from those generally accepted as comfortable. Heat strain can arise from working in high air temperatures, exposure to high thermal radiation or high levels of humidity, such as those in foundries, commercial kitchens and laundries. Hypothermia arises when a person gets an abnormally low body temperature as a result of exposure to cold environments. Both these conditions are potentially fatal.

Both personal and environmental factors should be considered when assessing the risk to workers' health from working in a very hot or cold environment. Personal factors include the level of physical activity, the amount and type of clothing worn, and duration of exposure. Environmental factors include air temperature, the level of humidity, air movement and

radiant heat.

Thermal comfort

Work should be carried out in an environment where a temperature range is comfortable for workers and suits the work they carry out. Air temperatures that are too high or too low can contribute to fatigue and heat or cold related illnesses. Thermal comfort is affected by many factors, including air temperature, air movement, floor temperature, humidity, clothing, the amount of physical exertion, average temperature of the surroundings and sun penetration.

Optimum comfort for sedentary work is between 20 and 26 degrees Celsius, depending on the time of year and clothing worn. Workers involved in physical exertion usually prefer a lower temperature range. The means of maintaining a comfortable temperature will depend on the working environment and the weather, and could include any of the following:

- Air-conditioning.
- Fans.
- Electric heating.
- Open windows.
- Building insulation.
- The layout of workstations.
- Direct sunlight control.
- Controlling air flow and the source of drafts.

Hot environments

If it is not possible to eliminate exposure to extreme heat, the risk of heat strain and heat exhaustion must be minimised so far as is reasonably practicable. For example:

- Increase air movement using fans.
- Install air-conditioners or evaporative coolers to lower air temperature.
- Isolate workers from indoor heat sources, for example by insulating plant, pipes and walls.
- Remove heated air or steam from hot processes using local exhaust ventilation.
- Use mechanical aids to assist in carrying out manual tasks.
- Alter work schedules so that work is done at cooler times.

The following control measures should also be considered but are least effective if used on their own:

- Slow down the pace of work if possible.
- Provide a supply of cool drinking water.
- Provide a cool, well-ventilated area where workers can take rest breaks.
- Provide opportunities for workers who are not used to working in hot conditions to acclimatise, for example job rotation and regular rest breaks.
- Ensure light clothing is worn to allow free movement of air and sweat evaporation.

Immediate assistance should be provided if any worker experiences any of the following symptoms of heat strain: dizziness, fatigue, headache, nausea, breathlessness, clammy skin or difficulty remaining alert.

Cold environments

If it is not possible to eliminate exposure to extreme cold, the risks must be minimised so far as is reasonably practicable. For example:

- Provide localised heating, for example cab heaters for fork-lift trucks used in cold stores
- Provide protection from wind and rain, such as a hut or the cabin of a vehicle.

The following control measures should also be considered but are least effective if used on their own:

- Provide protection through warm (and if necessary, waterproof) clothing.
- Provide opportunities for workers who are not used to working in cold conditions to acclimatise, for example, job rotation and regular rest breaks.

Immediate assistance should be provided if any worker shows any of the following warning signs of hypothermia:

- Numbness in hands or fingers.
- Uncontrolled shivering.
- Loss of fine motor skills (particularly in hands – workers may have trouble with buttons, laces, zips).
- Slurred speech and difficulty thinking clearly.
- Irrational behaviour – sometimes a person will even begin to discard clothing.

The environmental conditions and physical well being of workers should be monitored when work involves prolonged or repeated exposure to heat or cold.

You should train workers to recognise the early symptoms of heat strain or hypothermia, how to follow safe work procedures and to report problems immediately.

3. WELFARE FACILITIES:

All workers require access to adequate facilities. However, it may not always be reasonably practicable to provide the same types of facilities for a temporary, mobile or remote workplace that are normally provided for a fixed workplace.

Appendix B provides examples of facilities for two types of workplaces.

Regulation 41: A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the provision of adequate facilities for workers, including toilets, drinking water, washing and eating facilities. These facilities must be in good working order, clean, safe and accessible.

When considering how to provide and maintain facilities that are adequate and accessible, a person conducting a business or undertaking must consider all relevant matters including:

- the nature of the work being carried out at the workplace
- the nature of the hazards at the workplace
- the size, location and nature of the workplace
- the number and composition of the workers at the workplace.

3.1 ACCESS TO FACILITIES:

Workers, including those who have particular needs or disabilities, must have access to the facilities. Facilities may not need to be provided if they are already available close to the workplace, are suitable for workers to use and the workers have appropriate opportunities to use them. This would mean that:

- Workers are provided with breaks to use facilities.
- The facilities are within a reasonable distance from the work area.

- Night shift workers have similar access as those working in the day.
- The means of access is safe at all times.

3.2 DRINKING WATER:

An adequate supply of clean drinking water must be provided free of charge for workers at all times. The supply of the drinking water should be:

- Positioned where it can be easily accessed by workers.
- Close to where hot or strenuous work is being undertaken to reduce the likelihood of dehydration or heat stress.
- Separate from toilet or washing facilities to avoid contamination of the drinking water.

The temperature of the drinking water should be at or below 24 degrees Celsius. This may be achieved by:

- Refrigerating the water or providing non-contaminated ice.
- Shading water pipes and storage containers from the sun.

Water should be supplied in a hygienic manner, so that workers do not drink directly from a shared container. This may involve:

- A drinking fountain, where the water is delivered in an upward jet.
- A supply of disposable or washable drinking containers.

Water supplied for certain industrial processes or for fire protection may not be suitable for drinking. These water supply points should be marked with signs warning that the water is unfit for drinking.

Mobile, temporary or remote workplaces:

Sometimes direct connection to a water supply is not possible. In these cases, alternatives – including access to public drinking water facilities, bottled water or containers – should be provided for workers.

3.3 TOILETS:

Access to clean toilets must be provided for all workers while they are at work. Where reasonably practicable, toilet facilities should be provided for workers, rather than relying on access to external public toilets.

Number of toilets:

For workplaces within buildings, the *National Construction Code of Australia* sets out the ratio of toilets to the number of workers, and the specifications for toilets. Generally, separate toilets should be provided in workplaces where there are both male and female workers. However, one unisex toilet may be provided in workplaces with both male and female workers where:

- The total number of people who normally work at the workplace is 10 or less.
- There are two or less workers of one gender.

For example, a workplace with two male and eight female workers or with one female and three male workers could have a unisex toilet because there are 10 or fewer workers in total and two or fewer workers of one gender.

A unisex toilet should include one closet pan, one washbasin and means for disposing of sanitary items.

For all other workplaces, separate toilets should be provided in the following ratios:

Workers	Closet Pan(s)	Urinals
Males	1 per 20 males	1 per 25 males

Females	1 per 15 females	N/A

These ratios are the minimum standard that should be provided. However, in some workplaces, the scheduling of workers' breaks will affect the number of toilets required. There should be enough toilets available for the number of workers who may need to use them at the same time.

Design of toilets:

Toilets should be:

- Fitted with a hinged seat and lid.
- Provided with adequate lighting and ventilation.
- Clearly signposted.
- Fitted with a hinged door capable of locking from the inside on each cubicle.
- Designed to allow emergency access.
- Positioned to ensure privacy for users.
- Separated from any other room by an airlock, a sound-proof wall and a separate entrance that is clearly marked.

Toilets should be supplied with:

- An adequate supply of toilet paper for each toilet
- Hand washing facilities.
- Rubbish bins.
- For female workers, hygienic means to dispose of sanitary items.

Access to toilets:

Toilets must be accessible, preferably located inside a building or as close as possible to the workplace. In multi-storey buildings, toilets should be located on at least every second floor.

Mobile, temporary or remote workplaces:

If work is undertaken away from base locations or at outdoor sites (for example, gardeners, bus drivers, couriers), workers must have access to other toilets, for example public toilets or toilets at clients' premises. In such cases, information should be provided to workers on where the toilets are located.

Where it is not reasonably practicable to provide access to permanent toilets (for example, short-term temporary workplaces and workplaces in remote areas), portable toilets should be provided. Portable toilets should be located in a secure place with safe access. They should be installed so they do not fall over or become unstable and should be serviced regularly to keep them clean.

3.4 HAND WASHING:

Hand washing facilities must be provided to enable workers to maintain good standards of personal hygiene. Workers may need to wash their hands at different times (for example, after visiting the toilet, before and after eating meals, after handling chemicals or handling greasy machinery).

Number of hand washing basins:

In most cases, for both males and females, hand washing basins should be provided in at least the ratio of one wash basin for every 30 males and one for every 30 female workers, or part thereof.

The number of hand washing basins may need to be increased depending on the nature of the work carried out at the workplace. For example, where the work involves exposure to infectious substances or other contaminants, separate

hand washing basins should be provided in addition to those provided with toilets.

Design of hand washing facilities:

Hand washing facilities should:

- Be accessible at all times to work areas, eating areas and the toilets.
- Be separate from troughs or sinks used in connection with the work process.
- Contain both hot and cold water taps or temperature mixers.
- Be protected from the weather.
- Be supplied with non-irritating soap (preferably from a soap dispenser).
- Contain hygienic hand drying facilities, for example automatic air dryers or paper towels.

Where a business engages in activities such as food preparation or health care, there are also duties under health legislation in relation to hand washing facilities.

Mobile, temporary or remote workplaces:

If work is carried out in locations where there are no hand washing facilities, workers should have access to alternative hand hygiene facilities, for example a water container with soap and paper towels, hand wipes or alcohol-based hand wash.

3.5 DINING FACILITIES:

Workers should be provided with access to hygienic dining facilities for eating their meals and for preparing and storing food. Depending on the type of workplace, a range of facilities may be appropriate, which could include a shared facility such as a canteen or cafeteria, a dedicated meals area or allowing time for mobile workers to access meal facilities.

A separate dining room should be provided if:

- 10 or more workers usually eat at the workplace at the same time.
- There is a risk of substances or processes contaminating food.

Facilities for large static workplaces:

A dedicated dining room should be provided that is protected from the weather and is separated from work processes, toilet facilities and any hazards (including noise, heat and atmospheric contaminants). It should be supplied with:

- Adequate numbers of tables and seats to accommodate each worker likely to use the dining room at one time.
- A sink with hot and cold water, washing utensils and detergent.
- An appliance for boiling water.
- Crockery and cutlery.
- Food warming appliances, such as a microwave oven.
- Clean storage, including a refrigerator for storing perishable food.
- Vermin-proof rubbish bins, which should be emptied at least daily.

Dining rooms should have 1 m^2 of clear space for each person likely to use the dining room at any one time. The clear space is calculated free of any furniture, fittings or obstructions such as pillars. This means that the size of a dining room for 10 workers should be 10 m^2 plus additional space for dining furniture, appliances and fittings such as sinks.

Facilities for small static workplaces:

For some small workplaces, an area within the workplace for making tea and coffee and preparing and storing food

might be all that is needed. The facility should be protected from the weather, be free of tools and work materials and be separated from toilet facilities and any hazards (including noise, heat and atmospheric contaminants). It should be supplied with:

- Seating.
- A sink with hot and cold water, washing utensils and detergent.
- An appliance for boiling water.
- Clean storage, including a refrigerator for storing perishable food.
- Vermin-proof rubbish bins, which should be emptied at least daily.

Mobile, temporary or remote workplaces:

Where the work involves travelling between different workplaces, or is remote or seasonal, workers need reasonable access to dining facilities. This may involve organising rosters for mobile workers to ensure that they are back at their base location for meal breaks or allowing workers to take their meal breaks at a public cafeteria.

It may be appropriate for some temporary workplaces to provide portable dining facilities such as mobile caravans or transportable lunchrooms.

Access to dining facilities for workers in remote areas, such as loggers or mining exploration workers, may be limited. At times the only enclosed facility available to them may be their vehicle. In this instance portable food storage facilities may be required, such as a car fridge or insulated lunch box.

3.6 PERSONAL STORAGE:

Accessible and secure storage should be provided at the workplace for personal items belonging to workers (for example, handbags, jewellery, medication or hygiene supplies). This storage should be separate from that provided for personal protective clothing and equipment in cases where contamination is possible.

Where any work involves the use of tools provided by a worker, provision should be made for secure and weatherproof storage of those tools during non-working hours.

Mobile, temporary or remote workplaces:

Where the workplace is temporary or mobile, lockable containers that can be held in a safe place should be provided. Where lockers are provided, they may also serve as secure storage for other personal items.

3.7 CHANGE ROOMS:

If workers have to change in and out of clothing due to the nature of their work, access to private changing areas with secure storage for personal belongings should be provided. This includes workers who need to:

- Wear personal protective clothing or uniforms while they are working.
- Leave their work clothing at the workplace.

If male and female workers need to change at the same time, separate male and female changing rooms should be provided. The changing room should allow a clear space of at least 0.5 m^2 for each worker.

The temperature in the changing room should be maintained so that it is comfortable for workers when changing. Additional heating or cooling may be needed.

Change rooms should be conveniently located and equipped with:

- Seating to enable the numbers of workers changing at one time to sit when dressing or undressing.
- Mirrors, either within the changing room or directly outside it.
- An adequate number of hooks and/or shelves.

Where change rooms are provided, it may be reasonably practicable to provide lockers for storing clothing and personal belongings. Lockers should be:

- Well ventilated, accessible and secure.
- A sufficient size to accommodate clothing and personal belongings.

There should also be a clear space of at least 1800 mm between rows of lockers facing each other and at least 900 mm between lockers and a seat or wall.

Mobile, temporary or remote workplaces:

Where the workplace is located away from buildings or other fixed accommodation, portable private facilities containing secure storage and seating should be provided.

3.8 SHOWER FACILITIES:

Certain jobs may involve dirty, hot or hazardous work and may require the provision of showering facilities. For example, jobs including mining, firefighting, work in abattoirs, foundry work, welding, and police search and rescue.

At least one shower cubicle for every 10 workers who may need to shower should be provided. Usually separate facilities should be provided for male and female workers. However, in small or temporary workplaces where privacy can be assured, it may be acceptable to provide one unisex shower.

Showers should have:

- A floor area of not less than 1.8 m^2.
- A slip-resistant surface that is capable of being sanitised.
- Partitions between each shower that are at least 1650 mm high and no more than 300 mm above the floor.
- An adjacent dressing area for each shower containing a seat and hooks.
- A lockable door enclosing the shower and dressing cubicle.

Each shower should be supplied with clean hot and cold water and individual non-irritating soap or another cleaning product. If grime or other by-products of the work process cannot be removed just by washing, individual nail or scrubbing brushes should be provided. Also provide drying facilities such as towels if the work the workers carry out means they need to shower before leaving the workplace.

Mobile, temporary or remote workplaces:

If workers work in remote or temporary locations, they should have access to shower facilities. This may involve providing portable shower units of the same standard.

4. GUIDANCE FOR SPECIFIC TYPES OF WORK

4.1 OUTDOOR WORK:

Outdoor workers should have access to shelter for eating meals and taking breaks, and to protect them in adverse weather conditions.

Access to shelter should be provided, for example, using sheds, caravans, tents, windbreaks or portable shade canopies. In some situations, vehicles or public facilities may provide appropriate short-term shelter.

Protection against solar ultraviolet (UV) exposure should also be provided for outdoor workers, for example:

- Reorganising outdoor work if possible so that workers carry out alternative tasks, or work in shade, when the sun is most intense, that is, between 10.00 am and 2.00 pm (11.00 am and 3.00 pm when there is daylight saving).
- Providing personal protective clothing (wide brim hat, long-sleeved collared shirt, long pants and sunglasses) and sunscreen.

4.2 REMOTE OR ISOLATED WORK:

Regulation 48: A person conducting a business or undertaking must manage the risks associated with remote or isolated work, including ensuring effective communication with the worker carrying out remote or isolated work.

Remote or isolated work is work that is isolated from the assistance of other people because of the location, time or nature of the work being done. Assistance from other people includes rescue, medical assistance and emergency services.

A worker may be isolated even if other people may be close by, for example, a cleaner working by themselves at night in a city office building. In other cases, a worker may be far away from populated areas, for example, on a farm.

Remote and isolated work includes:

- All-night convenience store and service station attendants.
- Sales representatives, including real estate agents.
- Long distance freight transport drivers.
- Scientists, park rangers and others carrying out field work alone.
- Health and community workers working in isolation with members of the public.

In some situations, a worker may be alone for a short time. In other situations, the worker may be on their own for days or weeks in remote locations, for example, on sheep and cattle stations.

Assessing the risks:

Working alone or remotely increases the risk of any job. Exposure to violence and poor access to emergency assistance are the main hazards that increase the risk of remote or isolated work. The following factors should be considered when assessing the risks:

The length of time the person may be working alone:

- How long would the person need to be alone to finish the job?

The time of day when a person may be working alone:

- Is there increased risk at certain times of day? For example, a service station attendant working alone late at night may be at greater risk of exposure to violence.

Communication:

- What forms of communication does the worker have access to?
- Are there procedures for regular contact with the worker?
- Will the emergency communication system work properly in all situations?
- If communication systems are vehicle-based, what arrangements are there to cover the worker when he or she is away from the vehicle?

The location of the work:

- Is the work in a remote location that makes immediate rescue or attendance of emergency services difficult?
- What is likely to happen if there is a vehicle breakdown?

The nature of the work:

- What machinery, tools and equipment may be used?

- Are high risk activities involved? For example work at heights, work with electricity, hazardous substances or hazardous plant.
- Is fatigue likely to increase risk (for example, with long hours driving a vehicle or operating machinery)?
- Is there an increased risk of violence or aggression when workers have to deal with clients or customers by themselves?
- Can environmental factors affect the safety of the worker? For example, exposure to extreme hot or cold environments?
- Is there risk of attack by an animal, including reptiles, insects and sea creatures?

The skills and capabilities of the worker:

- What is the worker's level of work experience and training? Is the worker able to make sound judgements about his or her own safety?
- Are you aware of a pre-existing medical condition that may increase risk?

Controlling the risks:

Buddy system – some jobs present such a high level of risk that workers should not work alone, for example jobs where there is a risk of violence or where work is carried out in confined spaces.

Workplace layout and design – workplaces and their surrounds can be designed to reduce the likelihood of violence, for example by installing physical barriers, monitored CCTV and enhancing visibility.

Communication systems – the type of system chosen will depend on the distance from the base and the environment in which the worker will be located or through which he or she will be travelling. Expert advice and local knowledge may be needed to assist with the selection of an effective communication system.

If a worker is working alone in a workplace that has a telephone, communication via the telephone is adequate, provided the worker is able to reach the telephone in an emergency. In situations where a telephone is not available, a method of communication that will allow a worker to call for help in the event of an emergency at any time should be chosen, for example:

- **Personal security systems**, being wireless and portable, are suitable for people moving around or checking otherwise deserted workplaces. Some personal security systems include a non-movement sensor that will automatically activate an alarm transmission if the transmitter or transceiver has not moved within a certain time.
- **Radio communication systems** enable communication between two mobile users in different vehicles or from a mobile vehicle and a fixed station. These systems are dependent upon a number of factors such as frequency, power and distance from or between broadcasters.
- **Satellite communication systems** enable communication with workers in geographically remote locations. Satellite phones allow voice transmission during transit, but their operation can be affected by damage to aerials, failure of vehicle power supplies, or vehicle damage.
- **Distress beacons** should be provided where life-threatening emergencies may occur, to pinpoint location and to indicate by activation of the beacon that an emergency exists. Distress beacons include Emergency Position Indication Radio Beacons (EPIRB) used in ships and boats, Emergency Locator Transmitters (ELT) used in aircraft and Personal Locator Beacons (PLB) for personal use.
- **Mobile phones** cannot be relied upon as an effective means of communication in many locations. Coverage in the area where the worker will work should be confirmed before work commences. Geographical features may impede the use of mobile phones, especially at the edge of the coverage area, and different models have different capabilities in terms of effective range from the base station. Consult the provider if there is any doubt about the capability of a particular phone to sustain a signal for the entire period the worker is alone. If any gaps in coverage are likely,

other methods of communication should be considered. It is important that batteries are kept charged and a spare is available.

Movement records – knowing where workers are expected to be can assist in controlling the risks, for example call-in systems with supervisors or colleagues. Satellite tracking systems or devices may also have the capability of sending messages as part of a scheduled call in system, and have distress or alert functions.

Training, information and instruction – workers need training to prepare them for working alone and, where relevant, in remote locations. For example, training in dealing with potentially aggressive clients, using communications systems, administering first aid, obtaining emergency assistance driving off-road vehicles or bush survival.

4.3 ACCOMMODATION:

If a business has workers working in regional and remote areas, accommodation may need to be provided while the work is being carried out. An example of such arrangements would be where accommodation is provided to fruit pickers during the harvesting season, shearers on a sheep station or workers engaged in construction work at a remote location.

Section 19: A person conducting a business or undertaking who provides accommodation for workers and owns or manages the accommodation must, so far as is reasonably practicable, maintain the premises so that the worker occupying it is not exposed to health and safety risks

Where reasonably practicable, the accommodation should be separated from any hazards at the workplace likely to adversely affect the health and safety of a worker using the accommodation. The accommodation facilities should also:

- Be lockable, with safe entry and exit.
- Meet all relevant structural and stability requirements.
- Meet electrical and fire safety standards.
- Have a supply of drinking water.
- Have appropriate toilets, washing and laundry facilities.
- Be regularly cleaned and have rubbish collected.
- Be provided with suitable sleeping quarters shielded from noise and vibration.
- Have crockery, utensils and dining facilities.
- Have adequate lighting, heating, cooling and ventilation.
- Have storage cupboards and other suitable furniture.
- Be provided with a refrigerator or cool room.
- Have all fittings, appliances and equipment in good condition.

5. EMERGENCY PLANS:

Regulation 43: A person conducting a business or undertaking must ensure that an emergency plan is prepared for the workplace that provides for:

a) Emergency procedures, including:

- An effective response to an emergency.
- Evacuation procedures.
- Notification of emergency services at the earliest opportunity.
- Medical treatment and assistance.

- Effective communication between the person authorised by the person conducting the business or undertaking to coordinate the emergency response and all persons at the workplace.

b) testing of the emergency procedures, including how often they should be tested

c) information, training and instruction to relevant workers in relation to implementing the emergency procedures.

There are different types of emergency situations, including fire or explosion, dangerous chemical release, medical emergency, natural disaster, bomb threats, violence or robbery.

In preparing and maintaining an emergency plan, the following must be taken into account:

- The particular work being carried out at the workplace.
- The specific hazards at a workplace.
- The size and location of a workplace.
- The number and composition of the workers and other people at a workplace.

The plan must be based on an assessment of the hazards at the workplace, including the possible consequences of an incident occurring as a result of those hazards. For example, a cleaner working by themselves in a city office building will be subject to different hazards to a worker in a chemical plant. The varying nature of the hazards requires the risks of the particular job to be assessed, and an appropriate emergency procedure put in place.

The impact of external hazards that may affect the health and safety of workers should also be taken into account (for example, a chemical storage facility across the road).

The preparation of an emergency plan for a workplace shared by a number of businesses (for example, a shopping centre, construction site or multi-tenanted office building) should be co-ordinated by the person with management or control of the workplace (who may be the property manager, principal contractor or landlord) in consultation with all tenants or businesses at the workplace.

If the business is conducted at such a workplace and an emergency plan has already been prepared, the types of emergency situations that may arise from the business must be taken into account in the emergency plan. Workers and their health and safety representatives must be consulted when reviewing, and if necessary revising, the emergency plan by the person responsible for preparing it.

A plan must be developed if there is no emergency plan at the workplace. If the workplace presents a significant hazard in an emergency, consultation with the local emergency services when developing the plan should occur.

5.1 PREPARING EMERGENCY PROCEDURES:

The emergency procedures in the emergency plan must clearly explain how to respond in various types of emergency, including how to evacuate people from the workplace in a controlled manner.

The procedures should be written clearly and simple to understand. Where relevant, the emergency procedures should address:

- Allocation of roles and responsibilities for specific actions in an emergency to persons with appropriate skills, for example appointment of area wardens.
- Clear lines of communication between the person authorised to co-ordinate the emergency response and all persons at the workplace.
- The activation of alarms and alerting staff and other people at the workplace.
- The safety of all the people who may be at the workplace in an emergency, including visitors, shift workers and tradespeople.

- Workers or other persons who will require special assistance to evacuate.
- Specific procedures for critical functions such as a power shut-off.
- Identification of safe places.
- Potential traffic restrictions.
- Distribution and display of a site plan that illustrates the location of fire protection equipment, emergency exits and assembly points.
- The distribution of emergency phone numbers, including out-of-hours contact numbers.
- Access for emergency services (such as ambulances) and their ability to get close to the work area.
- Regular evacuation practice drills (at least every twelve months).
- The use and maintenance of equipment required to deal with specific types of emergencies (for example, spill kits, fire extinguishers, early warning systems such as fixed gas monitors or smoke detectors and automatic response systems such as sprinklers).
- Regular review of procedures and training.

Emergency procedures must be tested in accordance with the emergency plan in which they are contained.

Evacuation procedures should be displayed in a prominent place, for example, on a noticeboard. Workers must be instructed and trained in the procedures.

A more comprehensive plan may be needed to address high risk situations such as:

- People sleeping on site (for example, hotels).
- Large numbers of people at the site at the same time (for example, stadiums).
- High risk chemical processes and major hazard facilities.
- Significant cash handling, particularly outside normal business hours.

Further guidance on emergency plans and procedures is available in AS 3745: 2010 – Planning for Emergencies in Facilities.

APPENDIX A – WORK ENVIRONMENT AND FACILITIES CHECKLIST:

Consultation (page 7)	✓/ ✗	Action to be taken
Have workers and their health and safety representatives been consulted on any decisions about the adequacy of the facilities?		
Location and nature of the workplace (page xx)	**✓/ ✗**	**Action to be taken**
Is the workplace near appropriate facilities?		
Is the means of access safe?		
Do all workers on all shifts have access to the facilities?		
Managing facilities (page 8)	**✓/ ✗**	**Action to be taken**
Are consumable items, such as soap and toilet paper, replaced regularly?		
Is broken or damaged infrastructure, such as plumbing, air-conditioning or lighting, repaired promptly?		
Is equipment and furniture, like fridges, lockers and seating, maintained in good condition?		
Are facilities cleaned regularly, at least daily?		
Workspace (page 9-10)	**✓/ ✗**	**Action to be taken**
Is there safe entry to and exit from the workstation?		
Is there enough clear space, taking into account the physical actions needed to perform the task, and any plant and personal protective equipment that is needed?		
Is there enough space in walkways and around cupboards, storage or doors, in addition to the clear workstation space?		
Floors (page 10-11)	**✓/ ✗**	**Action to be taken**
Is adequate floor covering provided for workers who need to stand for long periods?		
Are the floors maintained to be free of slip and trip hazards?		
Are factors such as the work materials used, the likelihood of spills and the need for washing considered		

when choosing floor coverings?		
Seating (page 11-12)	**✓/ ✗**	**Action to be taken**
Can the work be done from a seated position?		
Can the chair be adjusted for individual needs and is it appropriate to the type of work being carried out?		
Is there additional seating for workers who work standing and need to sit from time to time?		
Lighting (page 12)	**✓/ ✗**	**Action to be taken**
Does the lighting allow workers to move about easily and to carry out their work effectively without adopting awkward postures or straining their eyes to see?		
Does the working environment minimise the amount of glare, contrast or reflection?		
Air quality (page 13-14)	**✓/ ✗**	**Action to be taken**
Is the temperature between 20°C and 26°C (or less if the work is physically active)?		
Are ventilation and air-conditioning systems serviced regularly and maintained in a safe condition?		
Are rates of air movement in enclosed workplaces between 0.1 m and 0.2 m per second?		
Is local exhaust ventilation used to control airborne contaminants released during a work process?		
Exposure to heat or cold (page 14-16)	**✓/ ✗**	**Action to be taken**
Have all reasonably practicable control measures been implemented to minimise the risks of working in extreme hot or cold conditions?		
Have workers been trained to recognise unsafe conditions arising from exposure to hot or cold conditions, to follow safe work procedures and to report problems immediately?		
Drinking water (page 17-18)	**✓/ ✗**	**Action to be taken**
Are the drinking water outlets accessible to workers?		
Are the drinking water outlets separate from toilet and		

washing facilities?		
Is the water clean, cool and hygienically provided?		
Toilets (page 18-19)	**✓/ ✖**	**Action to be taken**
If the workplace has 10 or fewer workers (and two or fewer of one gender), has at least one unisex toilet been provided?		
If the workplace has more than 10 workers, is there at least one male toilet for every 20 men and one female toilet for every 15 women?		
Are there adequate toilet facilities for workers with disabilities?		
Are toilets clearly marked, and do they have lockable doors, adequate lighting and ventilation?		
Are toilets cleaned regularly?		
Is there adequate toilet paper, hand washing facilities and soap, rubbish bins and sanitary disposal?		

Hand washing (page 19-20)	**✓/ ✖**	**Action to be taken**
Are there enough hand washing basins for men and women?		
Does the nature of the work require additional hand washing facilities (taking into account exposure to dirty conditions, infectious agents, contaminants and health regulations)?		
Are the hand washing facilities separate from work-related troughs or sinks, protected from weather and accessible from work areas, dining facilities and toilets?		
Is hot and cold water, soap or other cleaning product provided?		
Is hygienic hand drying provided that does not involve workers sharing towels?		

Dining facilities (page 20-21)	**✓/ ✖**	**Action to be taken**

Does the nature of the work cause a health and safety risk to workers from preparing food or eating in the workplace?		
Is a dining room or dining area required, taking into account the guidance on page xx of this Code?		
Is there adequate protection from the elements, the work area, contaminants and hazards?		
For workplaces needing a dining room, is there 1 m^2 of clear floor space for each person likely to use the dining room at one time?		
If a shared dining facility is used, can it accommodate all workers likely to be eating at one time?		

Personal storage (page 21)	**✓/ ✖**	**Action to be taken**
Is there accessible, secure storage at the workplace for workers' personal property, including any tools provided by a worker?		
Is it separate from any storage facilities provided for personal protective clothing and equipment?		

Change rooms (page 21-22)	**✓/ ✖**	**Action to be taken**
Are change rooms provided for workers who are required to change in and out of clothing?		
Are there arrangements in place for the privacy of male and female workers?		
Do change rooms allow a clear space of at least 0.5 m^2 for each worker?		
Is the change room temperature comfortable for changing clothing?		
Is there enough seating, accessible mirrors, an adequate number of hooks for the numbers of workers changing at one time?		

Are there well-ventilated, accessible and secure lockers for each worker for storing clothing and personal belongings?		
Is there clear space of at least 1800 mm between rows of lockers facing each other and at least 900 mm between lockers and a seat or a wall?		

Showers (page 22)	**✓/ ✖**	**Action to be taken**
Are showers provided for workers where the work: • requires strenuous effort • leaves them dirty or smelly • exposes them to chemicals or bio-hazards		
Is there one shower cubicle for every 10 workers who may need to shower?		
Are there separate facilities for male and female workers, or other appropriate forms of security to ensure privacy?		
Is there a slip-resistant floor area of not less than 1.8 m^2, which is capable of being sanitised?		
Are partitions between each shower at least 1650 mm high and no more than 300 mm above the floor?		
Is there an adjacent dressing area for each shower, containing a seat and hooks, with a curtain or lockable door enclosing the shower and dressing cubicle?		
Is there clean hot and cold water and soap or other cleaning product?		
If workers need to shower before they can leave the workplace, are towels provided?		

Outdoor work (page 23)	**✓/ ✖**	**Action to be taken**
Are there appropriate procedures to ensure outdoor workers have access to clean drinking water, toilets, dining facilities, hygienic storage of food and water, and emergency and first aid assistance?		

Is there access to shelter for eating meals and taking breaks and for protection when weather conditions become unsafe?		
Mobile or remote work (page 23-25)	**✓/ ✖**	**Action to be taken**
Are there appropriate procedures to ensure that mobile or remote workers have access to clean drinking water, toilets, dining facilities, hygienic storage of food and water, and emergency and first aid assistance?		
Can mobile or remote workers access emergency communications that are reliable in their location, such as a satellite or mobile phone?		
Accommodation (page 25-26)	**✓/ ✖**	**Action to be taken**
Is the person conducting a business or undertaking accommodation separate from any hazards at the workplace likely to present a risk to the health or safety of a worker using the accommodation?		
Is it appropriately equipped, including: • safe access and egress • security of personal possessions • fire safety arrangements • electrical safety standards • drinking water • toilets, washing, bathing and laundry facilities • procedures to ensure cleanliness • suitable, quiet sleeping accommodation • crockery, utensils and dining facilities • rubbish collection • heating, cooling and ventilation		
Does the accommodation meet all relevant structural and stability requirements?		
Are the fittings, appliances and any other equipment maintained in good working condition?		

Emergency plans (page 27-28)	✓/ ✗	Action to be taken
Is there a written emergency plan covering relevant emergency situations, with clear emergency procedures?		
Is the plan accessible to all workers?		
Are workers, managers and supervisors instructed and trained in the procedures?		
Has someone with appropriate skills been made responsible for specific actions in an emergency (e.g. appointment of an area warden)?		
Is someone responsible for ensuring workers and others in the workplace are accounted for in the event of an evacuation?		
Are emergency contact details relevant to the types of possible threats (e.g. fire, police, poison information centre) displayed at the workplace in an easily accessible location?		
Are contact details updated regularly?		
Is there a mechanism, such as a siren or bell alarm, for alerting everyone in the workplace of an emergency?		
Is there a documented site plan that illustrates the location of fire protection equipment, emergency exits and assembly points?		
If there is a site plan and is it displayed in key locations throughout the workplace?		
Are procedures in place for assisting mobility-impaired people?		
Does the workplace have first aid facilities and emergency equipment to deal with the types of emergencies that may arise?		
Is the fire protection equipment suitable for the types of risks at the workplace (e.g. foam or dry powder type extinguishers for fires that involve flammable liquids)?		
Is equipment easily accessible in an emergency?		

Are workers trained to use emergency equipment (e.g. fire extinguishers, chemical spill kits, breathing apparatus, lifelines)?		
Have you considered neighbouring businesses and how you will let them know about an emergency situation should one arise?		
Have you considered the risks from neighbouring businesses (e.g. fire from restaurant/takeaway food outlets, Q fever from cattle yards)?		
Are emergency practice runs (e.g. evacuation drills) regularly undertaken to assess the effectiveness of the emergency plan?		
Is someone responsible for reviewing the emergency plan and informing staff of any revisions?		

APPENDIX B – EXAMPLES OF FACILITIES FOR DIFFERENT WORKPLACES:

Temporary workplace – Gardening:

Assessment of facilities needed	Facilities plan
Nature of work being carried out • Garden maintenance. Workers gather tools from depot at the start of the shift, and work outdoors in pairs most of the day, returning to the depot at the end of the day **Size and location of the** place **of work** • Depot located in township - gardens within 8 km of depot **Composition of the workforce** • Ten men and three women. **Type of workplace** • Depot is a permanent building, garden maintenance done at temporary sites **Need for maintenance** • Cleaning • Replenishing consumable items	**Toilets** • Separate male and female toilets available at the depot. Workers can use public toilets in gardens. **Shelter sheds** • Some of the gardens have public shelter accessible to workers. Can also seek temporary shelter in vehicle or return to depot. **Seating** • Sit/stand chair provided in potting room, and comfortable seating in lunchroom. Most other tasks done when standing or kneeling. **Dining rooms** • Workers have the option of returning to base for lunch where a lunchroom is provided, or taking lunch on site. Vehicles equipped with folding stools if latter is chosen. **Change room** • Separate male and female change rooms provided at the depot. **Drinking water** • Cool drinking water provided at depot, plus refrigerator for other types of drinks. • Workers take insulated individual flasks when off site. **Lockers** • Lockable locker provided for each worker, located in change room. **Washing facilities** • Hand basins located adjacent to male and female toilets; workers can use garden taps and paper towels if off site. • One shower located adjacent to change rooms with room to change clothes and lockable door.

Permanent workplace – Office:

Assessment of facilities needed	Facilities plan
Nature of work being carried out • Workers undertaking general office work **Size and location of the place of work** • Three-storey building located in the central business district. All floors in use. **Composition of the workforce** • 50 females and 20 males • Some staff have disabilities **Type of workplace** • Permanent building **Need for maintenance** • Cleaning • Replenishing consumable items	**Toilets** • Toilet block located on the 2nd floor • Lift provides access for disabled • Male: one toilet and urinal provided • Female: four toilets provided • Facilities for workers with disabilities - one unisex toilet provided. **Shelter sheds** • Not applicable, as all work is indoors. **Seating** • All workers provided with fully adjustable office chair. • Kitchen area provided with comfortable, non-adjustable dining chairs. **Dining rooms** • Dining room on ground floor has tables and seating to accommodate up to 20 persons at any one time – it also has a kitchen. • 2nd and 3rd floors have kitchenettes for boiling water and washing utensils. **Change room** • Change rooms not required. **Drinking water** • Drinking water and refrigerators provided in kitchen and kitchenettes • Cool water dispenser in ground floor kitchen. **Lockers** • Each worker has a lockable drawer for personal belongings at their workstation, or a locker or cabinet to store valuables on the same level as their workstation. **Washing facilities** • Hand basins located adjacent to male and female toilets. • Facilities for workers with disabilities - one hand basin provided.

Alcohol and Drugs

10.2 Better Heath Channel.

10.3 Achievement Program.

10.4 Incolink Alcohol and other Drugs Program – Drugs or Alcohol Not-at-Work.

10.5 Employee Assistance Professional Association of Australia [INC] [EAPAA]

10.6 Australiasian Medical Review Officers Association [AMROA]

10.7 National Centre for Education and Training on Addition [NCETA]

- **APPENDIX A: HOW ALCOHOL AND OTHER DRUGS OR CHEMICALS AFFECT PERFORMANCE:**
- **APPENDIX B: TIPS FOR SETTING OUT A WORKPLACE ALCOHOL AND OTHER DRUGS POLICY:**
- **APPENDIX C: SUGGESTED ALCOHOL AND DRUGS POLICY**

FORWARD:

This policy advice is based upon information contained in Work Sage Victoria's 'Guide for developing a workplace alcohol and other drugs policy'. The guide is very similar to other extensive guide provided by the states governments of Australia.

1. INTRODUCTION:

Employees adversely affected by the use of alcohol and other drugs (reference to drugs in this guide includes prescription and illegal drugs) can pose a risk to themselves and others in the workplace. This Guide aims to help employers establish a workplace alcohol and other drugs policy so that risks to workplace health and safety associated with the use of alcohol and other drugs can be dealt with consistently, legally and to the benefit of both the employer and the employee.

Alcohol and other drug use, whether it occurs in or away from the workplace, becomes an occupational health and safety issue if an employee's ability to exercise judgment, coordination, motor control, concentration and alertness at work is impaired.

Employees unfit for work as a result of alcohol or other drug use put themselves and other people at the workplace at risk of harm. Co-workers may feel obliged to cover unsafe work practices or not report an affected employee due to loyalty or fear of consequence.

Employers may be faced with lateness, inefficiency and absenteeism, lost time and production as a result of accidents, damage to plant, equipment and other property.

Occupational health and safety (OHS) laws are designed to ensure the health and safety of employees and others in the workplace. The Occupational Health and Safety Act requires employers, so far as is reasonably practicable, to provide and maintain a safe and healthy work environment for their employees.

The duty to provide and maintain a safe and healthy work environment and the duty to consult with employees extends to include independent contractors engaged by an employer and any employees of the independent contractor.

2. EMPLOYER DUTIES:

An employer's duty to provide and maintain a safe and healthy work environment includes:

- Providing and maintaining safe systems of work, so far as reasonably practicable.
- Making arrangements for the safe use, handling, storage or transport of plant or substances, so far as is reasonably practicable.
- Providing information, instruction, training or supervision to employees as is necessary for them to carry out their work safely.

Employers must consult with employees and their health and safety representatives (HSRs) when doing certain things that affect or are likely to affect employees health and safety (see section 35(1) of the OHS

Act). These things include:

- Identifying or assessing hazards or risks in the workplace, including those arising from the use of alcohol and other drugs
- Making decisions about procedures:
  - to prevent and manage risks associated with the use of alcohol and other drugs;
  - for resolving health or safety issues at the workplace;
  - for monitoring the health and safety of employees, and workplace conditions; and
  - for providing information and training to employees, including information and training on alcohol and other drugs.
- Proposing changes to the workplace, plant, substances or other things used in the workplace, or
- The conduct of the work performed at the workplace that may affect the health and safety of employees.

Employers and self-employed persons are also required to ensure that persons other than employees (which includes the public) are not exposed to risks to their health or safety arising from the undertaking of the employer or self-employed person.

3. EMPLOYEE DUTIES:

The OHS Act requires employees to take reasonable care for their own health and safety in the workplace, and the health and safety of others who may be affected by their acts or omissions. This includes ensuring they are not, as a result of alcohol or other drugs, affected in a way that may put themselves or others at risk.

Employees must also cooperate with their employer with respect to any action they take to comply with the OHS Act or OHS Regulations.

4. RISK MANAGEMENT PROCESS:

The hazards and risks associated with the use of alcohol and other drugs in the workplace should be assessed in the same way as other occupational health and safety issues.

Adopting a risk management approach may assist employers manage risks associated with alcohol and/or drug impairment in the workplace. The risk management process involves:

- Identifying hazards associated with alcohol and drug use in the workplace.
- Assessing the likelihood of risk.
- Controlling the risks associated with the use of alcohol and other drugs.
- Reviewing the effectiveness of control measures to ensure they are working as planned and, when necessary, revising and improving existing controls.

Consultation should take place at every step of the risk management process in accordance with section 35 of the OHS Act.

The likelihood of risk to employee's health and safety due to impairment from alcohol and other drug use will increase in workplaces that:

- Operate high risk machinery, handle hazardous substances or dangerous goods.
- Are a high risk environment (eg: workplaces that involve working at heights).

The likelihood of the use of alcohol and other drug use by employees may be increased by workplace factors including:

- Whether the organisation's culture, nature of the work or workplace practices encourage alcohol or drug use at work.
- Availability at work - some workers may be more exposed to the risk of alcohol consumption at work, for example those working in licensed premises.

5. OVERVIEW OF ALCOHOL CONSUMPTION AND DRUG USE:

Problems associated with the use of alcohol and other drugs can occur in any workplace. However, the harmful use of alcohol and other drugs both during and outside of work hours is more prevalent in some industries than others, pointing to environmental, cultural and workplace stressors as risk factors.

Stressors at home and at work can contribute to the extent to which alcohol and other drugs are used. These may include:

- Shift work.
- Type of work activities undertaken such as high risk work.
- Unrealistic deadlines and performance targets, or inadequate resources.
- Access to alcohol and other drugs at work or a culture tolerating or encouraging alcohol and other drug use during or after work hours.
- Lack of opportunity to participate in decision making.
- Inadequate training and/or supervisor support.
- Bullying, harassment or victimisation in the workplace.
- Lack of job security.
- Conflict with peers or supervisors.
- Discrimination or prejudice.
- Peer pressure.
- Dirty, noisy work environment.
- Poorly designed, difficult to use equipment.
- Poor job design, including boring or extremely demanding work.

Personal psychosocial factors that may impact on the extent of alcohol and other drug use may include:

- Marital or personal relationship problems.
- Grief and bereavement.
- Trauma or stress.
- Health issues or concerns.
- Gambling or financial problems.
- Dependency or addiction.

Employers should identify stressors in the workplace setting including working conditions and aspects of the workplace culture that may contribute to or exacerbate potentially harmful alcohol and drug use.

Adverse effects associated with alcohol and drug use may be minimised where employers provide:

- A safe and healthy workplace
- Well organised, adequately supervised work that employees find challenging and rewarding
- Appropriate support to help with problems or pressures at work
- Restricted access to alcohol and other drugs at work, and
- A clear and well publicised alcohol and other drug policy that applies to all employees.

6. DEVELOPING AND ALCOHOL AND OTHER DRUGS POLICY:

A constructive step for employers in addressing health and safety risks associated with the use of alcohol and other drugs is to formulate a policy, with supporting procedures, that addresses the specific circumstances of the workplace. See tips for setting out a workplace alcohol and other drugs policy below.

The aims of any workplace alcohol and other drugs policy should be prevention, education, counselling and rehabilitation. The focus of the policy should be to reduce or eliminate the risks associated with the use of alcohol and other drugs in the workplace in a way that is consistent and fair to all employees.

A workplace alcohol and other drugs policy should be developed in a collaborative manner between management, employees and their representatives or HSRs. When developing the policy employers must share information, allow employees a reasonable opportunity to express their views about how the policy should operate, and take these views into account.

The policy will be most successful if it has the commitment of management and support of the workplace. If employees are represented by a HSR, the HSR must be involved in the development of the policy with or without direct involvement of the employees they represent.

6.1 STEPS TO DEVELOP A WORKPLACE ALCOHOL AND OTHER DRUGS POLICY MAY INCLUDE:

Establish a representative group to formulate and implement the policy

- Establish a group to oversee development of the policy that includes employees, employee representatives or HSRs and management representatives.
- Use existing health and safety committees to develop the policy or set up a specific working group.
- Ensure the group clearly identifies its objectives and has adequate resources to carry them out.

Develop the policy in consultation with employees

- Develop the policy through an open process that seeks input from employees, employee representatives, or HSRs and if possible, professional drug and alcohol support networks.
- Undertake a risk assessment to identify workplace factors that may impact on the use of alcohol and other drugs, and the nature of risk arising from the use of alcohol and other drugs by employees. The outcomes of the risk assessment will help shape the content of the policy.
- Adopt effective communication strategies to ensure regular feedback is provided to employees should be adopted. This approach will give employees a sense of ownership of the policy, making it more likely to be accepted and followed at the workplace when it is introduced.

Consultation on an alcohol and other drugs policy may include the following steps:

- Develop procedures and a timetable for implementing the policy starting with an education program.
- Develop a preliminary draft policy and have it reviewed by the representative group overseeing its development
- Seek feedback on a draft policy from all at the workplace who may be affected by its operation (including employees, independent contractors and/or employees of the independent contractor). Where appropriate, feedback received should be incorporated into the document.
- Present a draft policy to the health and safety committee, where one exists, for its consideration.
- Present a final draft policy to management for endorsement.
- Distribute the endorsed policy to all employees and others at the workplace.
- Ensure the policy is readily available, for example pin it on the company noticeboard or upload it to the company intranet.

Provide information, education and training:

Employers must provide the necessary information, instruction and training to employees to enable them to perform their work safely. Providing information on drug and alcohol use can help to ensure that all employees are aware of the issues associated with the use of alcohol and other drugs and how this may impact on health and safety in the workplace.

In addition, employers should ensure that comprehensive information, instruction and training is provided to employees on the content and operation of an alcohol and other drugs policy.

Once a policy is developed, it should be well communicated within the workplace and a suitable information and education program put in place to engage all employees.

Effective ways to communicate the policy may include employee briefings, team meetings, posters on notices boards and emails to employees. Details of the policy should be included in induction materials and ongoing information, education and training provided to employees.

Information provided to employees may include:

- What constitutes harmful alcohol consumption and other drug use.
- What to do if they suspect a co-worker is affected by alcohol or other drugs.
- The effects of alcohol and other drugs on health, safety and work performance.
- General statistics on workplace alcohol and other drug use and related accidents.
- The consequences for employees who fail to comply with the workplace alcohol and other drugs policy.
- Workplace and personal lifestyle stressors that can contribute to alcohol and other drugs use.
- Personal stress reduction methods.
- Who to approach in the workplace for assistance with an alcohol or other drugs problems.
- The legal position (rights and penalties) of employees and management in relation to alcohol and drug use – eg as specified in the OHS Act or Regulations, an employment agreement, award or industry specific legislation.
- counselling, treatment and rehabilitation services available in the workplace and contact details for services available externally
- how the use of alcohol and other drugs outside of work can impact safety in the workplace (eg as a result of being hungover or coming down from a drug).

Employers should also provide specific training for managers, supervisors and OHS representatives about how to identify employees affected by alcohol or other drugs, how to manage associated risk, and their specific responsibilities under the alcohol and other drugs policy.

7. SUPPORTING PROCEDURES:

It is important to have appropriate supporting procedures in place to ensure an effective alcohol and other drugs policy. Supporting procedures may address all or some of the following matters:

7.1 IDENTIFICATION OF AN EMPLOYEE NOT FIT FOR WORK AS A RESULT OF ALCOHOL AND/OR OTHER DRUG USE:

Clearly specify procedures for identifying employees who appear to be impaired by alcohol and/or other drugs. If procedures are not clear, employees are unlikely to implement them and uncertainty will almost certainly arise.

7.2 APPROACHING AN EMPLOYEE UNDER THE INFLUENCE:

Clearly outline and communicate the procedures for managing an employee suspected of being impaired by alcohol and/or other drugs at the workplace.

The procedures should outline the designated persons who should approach employees who appear to be affected by alcohol or other drugs. Designated persons may include managers, supervisors, OHS representatives and/or fellow employees.

Designated employees should be properly trained in the most effective style of approach, and be provided with clear information about the scope and nature of their responsibility under the procedure. Care needs to be taken when approaching an employee in case the employee is ill or injured, taking prescribed medication or in some other form of distress, which may account for their behaviour.

The best approach to take when dealing with an employee whose work performance is suspected of being affected by alcohol or other drugs may differ depending on the nature of the workplace and the particular circumstances of the case.

Relevant factors may include:

- The nature of the industry.
- The workplace culture and structure.
- The work carried out by the employee.
- The personality of the employee.
- Whether it is a case of suspected long-term harmful use, or a 'one-off' situation.

The procedure should address situations where initial contact produces a negative or hostile response. In these situations, the procedure should make clear who the matter can be escalated to.

When approaching an affected employee it can be more effective and less confronting to talk in terms of their approach to safety and general work performance rather than their suspected alcohol or drug use.

Procedures should include steps to remove an affected employee from the workplace that do not further endanger the employee or their co-workers. For example, procedures should ensure that there are steps in place to ensure that the employee is able to get home safely.

Procedures should also outline steps for initiating police or ambulance intervention if the situation cannot be safely managed at the workplace level.

7.3 WORK SPONSORED FUNCTIONS AND THE PROVISION OF ALCOHOL:

If work functions include alcohol, include an additional section in the supporting procedures outlining the organisation's policy on consumption of alcohol at social functions. Alternatively, a separate policy or set of procedures dealing with work sponsored functions may be developed.

The document should clearly outline the employer's expectations of appropriate behaviour in relation to the consumption of alcohol, and should be re-communicated to employees prior to each function. For instance, an email may be sent to employees the week before a work function reminding attendees about the organisations policy or procedures on consumption of alcohol at social functions.

7.4 COUNSELLING AND DISCIPLINE:

The procedure for counselling, and if necessary, disciplining employees whose work performance indicates there may be a problem with the use of alcohol and/or other drugs should be consistent with existing awards, agreements and other established counselling and disciplinary measures which apply in the workplace.

Employees should be encouraged to recognise poor and unsafe work performance, and encouraged to take steps to address the issues contributing to their behaviour.

7.5 EMPLOYEE ASSISTANCE PROGRAMS (EAPS):

Employees who identify as having an alcohol and/or other drugs problem should be referred to professional assistance, which might include an employer provided service like an EAP. Employees can also choose to access the service of

their own accord. EAPs provide a confidential service to assist employees to resolve personal issues which may affect their work performance and can add to the effectiveness of a workplace alcohol and other drugs policy. Workplaces that use an EAP may experience indirect benefits such as a reduction in accidents, sick leave and absenteeism.

More information about establishing an EAP is available on page 13 of this guide.

It is important to remember that a workplace alcohol and other drugs policy must deal directly with unsafe conditions, stressors and one-off situations and not rely solely upon an EAP.

7.6 TESTING:

A workplace that is considering implementing an alcohol and drug testing program should consider the strengths and limitations, costs and potential unintended consequences, as well as the benefits.

When considering the introduction of alcohol or drug testing, employers should ensure workplace policies and programs are appropriate to the level of risk by doing a risk assessment. Ultimately, testing is one of a variety of control measures that can be used and its applicability in the workplace should be carefully considered.

Note: The OHS Act and Regulations do not mandate, require or prohibit testing. Some workplaces may require testing as part of their alcohol and other drugs management plan and industrial agreements.

Employers may wish to consider the appointment of a Medical Review Officer (MRO) to assist with alcohol and other drug testing in their workplace. The use of MROs in workplace testing programs helps manage privacy and confidentiality issues as well as sample collection, results storage and legal challenges. MROs are registered medical practitioners who have knowledge and understanding of:

- Substance abuse disorders and their management.
- Testing procedures.
- Interpretation of test results including alternative medical explanations for laboratory confirmed test results as well issues relating to contaminated and/or substituted specimens
- Ethical and privacy issues surrounding workplace drug and alcohol testing.
- Laboratory methodology and quality control.
- Legislation and recommended standards in relation to alcohol and other drug testing programs.
- Fitness for work and other medical related safety issues. It is important to remember that.

Testing may be intrusive and raises confidentiality and privacy issues:

- Excluding alcohol testing, a positive drug test is not always directly related to impairment.
- There is a possibility of inaccurate results and false positives in drug testing. There may also be issues related to insufficient integrity of the testing process and the interpretation of results. Drug testing has limits and can be subject to legal challenge
- if an employee refuses to be tested it cannot be presumed that they are intoxicated. An employee may have a valid reason to refuse to be tested, unless specific legislation, contracts or employment agreements provide otherwise.

If an employer decides to implement alcohol or drug testing:

- It should be part of a comprehensive alcohol and drug program and supported by appropriate safeguards, clear policy and procedures, and provision of information, instruction, education and support.
- The policy and procedures for testing should be developed in consultation with employees. While consultation does not require agreement, given the intrusive nature of drug testing, employee agreement to a testing regime is preferable

- Issues relating to privacy and confidentially of employees need to be considered.
- Procedures should be developed on how to address the situation where an employee refuses to be tested.
- Appropriate safeguards should be put in place, which ensure:
  - cut-off points for a positive result are selected and clear;
  - testing is conducted in accordance with the relevant Australian Standards (AS4760 – 2006 Procedures for Specimen Collection and the Detection and Quantitation of Drugs in oral fluid and AS/NZ 4308:2008 – Procedures for Specimen Collection and the Detection and Quantitation of Drugs of Abuse in Urine)
  - there is no discrimination in the selection of employees for testing;
  - there are well defined procedures indicating who the final result will be communicated to;
  - confidentiality is protected and the procedures identify who will have access to the results, who will interpret them, how the results will be stored and for how long;
  - there is a grievance and complaints process, including accepted procedures to challenge the outcome of a test; and
  - Procedures are put in place for employees to travel home safely following a positive test.

If testing is introduced, written procedures for testing and an implementation timetable should be communicated to employees. Employers should also ensure procedures are developed to address the employees return to work and any future testing obligations.

7.7 ALCOHOL AND OTHER DRUG TESTING MUST BE UNDERTAKEN WHERE REQUIRED BY SPECIFIC LEGISLATION.

Some industries and occupational groups are covered by specific legislation that regulates the use of alcohol and other drugs in the workplace. For example, the OHS Regulations require mine operators to introduce strategies to protect persons at the mine from risks to their health and safety associated with consumption of alcohol or use of other drugs by any person (see regulation 5.3.12 of the OHS Regulations). There is also public safety legislation in place in the transport industry (covering specified aviation, rail, road and maritime employees) that restricts the use of alcohol and other drugs in the workplace.

8. PRIVACY:

The Commonwealth Government and most states have laws which govern how organisations may collect, use and disclose personal information. These laws include the:

- Privacy Act 1988 (Cth)
- Privacy and Data Protections Act 2014 (Vic)
- Health Records Act 2001 (Vic).

Employers need to be aware of their obligations under these laws and all other relevant legislation. All information concerning an employee is strictly confidential and the OHS Act is also careful to protect the privacy of employees.

For privacy the laws enacted by other states refer to their relevant websites.

9. EMPLOYEE ASSISTANCE PROGRAMS [EAP]:

An EAP is a confidential service designed to help employees address and resolve personal issues that may be affecting their work performance such as marital, legal and financial problems and the use of alcohol and other drugs. An EAP may help an individual to regain satisfactory job performance.

http://eapassist.com.au/?gclid=EAIaIQobChMIqobo9vSN2wIVjTgrCh2B8QNOEAAYASAAEgKiovD_BwE

Establishing an EAP may not be appropriate for many small workplaces. Where an employer does not establish an EAP, they should investigate appropriate services to which employees can be referred.

Below is an outline of how to establish and run an EAP.

9.1 ESTABLISHING AN EAP:

An EAP should be established by management in consultation with employees and/or their HSR.

Organisations can establish in-house counselling services or refer employees to external counselling services provided by either private consultants or community based organisations. Smaller organisations wishing to establish an EAP often employ external counselling services.

EAP counsellors should have skills in psychological assessment and referral. Clinical psychologists, psychiatrists and social workers are suitably qualified to be EAP counsellors.

Employers can assist employees by displaying and distributing lists of EAP counsellors and their specialist areas. A supervisor who believes an employee's performance at work is affected by alcohol or other drugs can suggest that the employee see an EAP counsellor. An employee does not have to accept an offer to see an EAP counsellor. Some employees may prefer to choose a counsellor of their choice from outside the organisation.

9.2 CONFIDENTIALITY:

The credibility of an EAP depends on a code of strict confidentiality. EAP counsellors may inform employers that an employee will be attending a counselling session between certain times, if the employee consents to this information being provided. No other information about an employee's personal problems may be disclosed without the written permission of the employee.

An employee can be referred to an EAP by a supervisor or can contact an EAP counsellor on their own initiative.

If an employee visits a counsellor during working hours they should advise their supervisor that they are using the service but do not have to give the reason for the visit. If they use the service outside of working hours they do not have to tell anyone.

9.3 PUBLICITY AND TRAINING.

All employees should be made aware of the EAP and how to make use of its services. Information booklets and/or brochures and videos should be made available explaining EAP policy and procedures and the range of assistance offered. Posters are a useful reminder of the existence of the services of the EAP.

All ongoing training courses such as supervisor skills courses, employee inductions and management development courses should include information about the EAP.

9.4 TRAINING.

Evaluation of an EAP is essential to ensure that it is meeting the needs of the organisation.

Data should be kept about:

- The ongoing costs of running the EAP.
- Injury and fatality rates.
- Absentee and sick leave rates.
- Production statistics.

A confidential survey of employees can establish the:

- Number of employees using the service.
- Types of problems they present with.

- Rate of success in improving work performance.

The EAP may provide regular reports containing

de-identified data to the employer outlining any work-related OHS matters that are identified by employees using the EAP (eg unrealistic deadlines, excessive work load) which may be increasing the risk of harmful use of alcohol and other drugs by employees (see list of stressors).

10. RESOURCES:

Below is a list of key alcohol and other drugs information, education, counselling, medical and self-help services available in Victoria.

10.1 VICTORIAN GOVERNMENT DEPARTMENT OF HEALTH AND HUMAN SERVICES:

The Department of Health and Human Services website contains information about a range of alcohol and other drug policy issues, including Victoria's Plan 2013-2017. It also contains information about drug treatment services and guidelines.

https://www2.health.vic.gov.au/alcohol-and-drugs

10.2 BETTER HEALTH CHANNEL:

The Better Health Channel provides health and medical information on a wide range of health issues to help improve the health and wellbeing of Victorians and provides a wide range of information about the health effects of alcohol and other drugs.

https://www.betterhealth.vic.gov.au/healthyliving/drugs

10.3 ACHIEVEMENT PROGRAM

The Achievement Program health promoting framework assists workplaces to determine what policy, cultural and environmental changes are needed within their organisation to make it easier for employees to be healthy. The Program is managed by the Cancer Council Victoria on behalf of the Victorian Department of Health and Human Services.

Aligned to international best practice and government recognised, the Program provides practical state-wide support to all Victorian workplaces, providing organisations with the tools they need to develop a tailored approach and monitor their achievements. This includes best practice benchmarks, policy templates and other guidance on promoting responsible alcohol consumption.

http://www.achievementprogram.health.vic.gov.au/workplaces

PH: 1300 721 682

10.4 INCOLINK ALCOHOL AND OTHER DRUGS PROGRAM – DRUGS OR ALCOHOL NOT AT WORK:

Incolink provides support for members of the construction industry and provides information about services and support across Australia.

http://notatwork.com.au/%20incolink.org.au/

PH: 9639-3000

10.5 EMPLOYEE ASSISTANCE PROFESSIONAL ASSOCIATION OF AUSTRALASIA (INC) (EAPAA)

EAPAA is the peak Australasian body representing provider and user members that supply Employee Assistance Programs in the workplace. EAPAA is not a service provider but does provide a list of EAP providers in Victoria.

http://www.eapaa.org.au/site/providers/

PH: (02) 9882 2688

10.6 AUSTRALASIAN MEDICAL REVIEW OFFICERS ASSOCIATION (AMROA):

AMROA is the professional body representing Medical Review Officers in Australasia.

The website has useful information about drug and alcohol testing and a “find an MRO function”.

http://amroa.org.au/

10.7 NATIONAL CENTRE FOR EDUCATION AND TRAINING ON ADDITION (NCETA)

NCETA is an internationally recognised research centre that works as a catalyst for change in the alcohol and other drugs field. They offer information and access to a wide range of Alcohol and other Drug resources and research.

http://nceta.flinders.edu.au/

PH: (08) 8201 7535

APPENDIX A: HOW ALCOHOL AND OTHER DRUGS OR CHEMICALS AFFECT PERFORMANCE:

In general, the effects of alcohol and other drugs vary according to:

- The amount and the way it is consumed.
- Gender.
- Weight and state of health.
- Built-up tolerance and dependence.
- The pharmacological nature of the substance.
- Combination with food or other drugs.

ALCOHOL:

Alcohol is a depressant drug which slows brain activity and responses. The effects vary depending on a number of variables including individual tolerance, gender (in general women have a lower tolerance than men) age (younger people tend to be more greatly affected by alcohol than older people) and general health.

The legal blood alcohol concentration limit for driving in Victoria is under 0.05% which can be reached by a 70kg male consuming two standard drinks in one hour and for a 50kg female, one standard drink in one hour. However, it is important to note that the effects of alcohol can vary from person to person in response to various factors, such as body fat, stomach contents and general health, so the above formula should be used as a guide only.

Tolerance means the need to drink or take larger amounts of alcohol or other drugs to get the same effect. While a person may not feel impaired, the ability to make a good decision quickly is impacted.

A standard drink in Australia refers to 10 grams of alcohol. On average, this is how much the human body can process in one hour. The number of standard drinks in a beverage differs depending on the type and size of alcohol.

For example:

- Full strength (4.8%) beer:
  - Pot (285ml) = 1.1. standard drinks
  - Can/stubbie (375ml) = 1.4 standard drinks
  - Schooner (425ml) = 1.6 standard drinks
  - Pint (570ml) = 2.2 standard drinks
  - Longneck (750ml) = 2.8 standard drinks
- Red wine (13.5%), glass (150ml) = 1.6 standard drinks
- White wine (11.5%), glass (150ml) = 1.4 standard drinks
- Champagne (12%), glass (150ml) = 1.4 standard drinks
- Straight spirit (40%), shot (30ml) = 0.9 standard drinks
- Pre-mixed spirit (5%), bottle (300ml) = 1.2 standard drinks

For further information on standard drinks, visit drinkwise.org.au

There are many employees who are professionally employed as drivers who are covered by blood alcohol restrictions. For example, a zero blood alcohol (0.00) limit has been set for bus, taxi-cab drivers, driving instructors and certain heavy vehicle licence holders.

Possible effects of alcohol use include:

- Impairment of co-ordination, judgement, cognition and the ability to respond.
- Blurred vision.

- Slurred speech.
- Nausea.
- Vomiting.
- Disinhibition and increased risk taking.

In the longer term heavy alcohol use can lead to excess weight gain, increased risk of cancer, heart disease and diabetes, and for some the risk of dependence. Health effects can include damage to all organs in the body, including the brain, nerves, liver, heart and stomach.

CANNABIS:

Cannabis (marijuana) is the mostly common used illicit drug in Australia. It consists of dried flowers and leaves of the cannabis plant.

Possible effects of cannabis use include:

- Difficulty in concentration.
- Poor coordination.
- Confusion.
- Clumsiness.
- Impaired judgement.
- Slowed reaction times.

Cannabis consumption may lead to psychological dependence and paranoia. When mixed with alcohol, there is a much increased risk of accidents. Somebody who is vulnerable to mental health problems is at increased risk of experiencing mental health problems including psychosis if they use cannabis. Cannabis use may also cause respiratory problems and make pre-existing health problems worse.

Synthetic cannabinoids are chemicals that mirror the chemical compounds in cannabis but as the name suggests are synthetically manufactured. These are sometimes incorrectly referred to as ‘”legal highs” or “fake weed” and physical effects are often unpredictable and have been known to cause death.

OPIOIDS:

The following drugs are opioids:

- Opium.
- Morphine.
- Heroin.
- Pethidine.
- Methadone.
- Codeine.
- Oxycodone.
- Fentanyl.

These types of drugs relieve pain and can produce feelings of euphoria and wellbeing. However, users can develop a tolerance and dependence very quickly.

Possible effects of opioid use include:

- Drowsiness.
- Reduced vision.
- Hypoventilation (slow breathing or breathing difficulties).
- Nausea.
- Vomiting.
- Loss of consciousness.

Severe consequences including overdose and death can also occur if opioids are mixed with alcohol or other drugs that can cause drowsiness or reduce breathing

Methadone is an opioid predominantly used to treat heroin dependent people but can be used to treat chronic severe pain that does not respond to other types of pain medication. Methadone is only legal within a treatment program.

The ability to drive a car or operate heavy machinery may be impaired when using any kind of opioid, including over the counter codeine products.

STIMULANTS:

Stimulants are drugs that elevate the mood and increase wakefulness. Possible effects of their use include:

- Hyperactivity.
- Agitation.
- Confusion.
- Insomnia.
- Paranoia.
- Violent or aggressive behaviour.
- Increased pulse rate and blood pressure.
- Convulsions.
- Stroke.

Amphetamine type stimulants (ATS) include methamphetamine (speed, ice), methylenedioxymethamphetamine (MDMA, Ecstasy), and cocaine.

Possible effects of methamphetamine use include:

- Fast heart rate and breathing.
- Hyperactivity, agitation and confusion.
- Enlarged pupils and dry mouth.
- Reduced appetite.
- Teeth grinding and excessive sweating.
- Repeating simple things like itching and scratching. Possible effects of MDMA use include:
- Blurred vision.
- Muscle cramping.
- Inability to regulate body temperature.
- Convulsions.

- Hallucinations.

Possible effects of cocaine use include:

- Increased heart rate, blood pressure and body temperature.
- Erratic and sometimes violent behaviour.
- Chest pain.
- Heart attack.
- Convulsions.
- Seizures.
- Psychosis.

HALLUCINOGENS:

Hallucinogens are a group of drugs that can change a person's perception. The most common forms of hallucinogens are lysergic acid diethylamide (LSD) and wild mushrooms containing psylocibin.

Possible effects of hallucinogens include:

- Illusions and hallucinations.
- Poor perception of time and distance.
- Drowsiness.
- Confusion.
- Inability to concentrate.
- Loss of memory
- Panic
- Paranoia
- Hyperactivity
- Insensitivity to pain
- Anxiety.

The gross distortions in perception that can occur when using hallucinogens can place the user at serious risk of injury, accident and sometimes mental health problems.

VOLATILE SUBSTANCES (SOLVENTS AND INHALANTS):

Volatile substances are commonly known as inhalants or solvents and are sometimes used as substitutes for other drugs. The most commonly used volatile substances are butane gas, chrome, paint thinner, petrol and glue. As with alcohol, volatile substances are classified as central nervous system depressants.

Deliberate inhalation of volatile substances or unintentional inhalation, for example, when working with solvents, may lead to intoxication and/or impair the ability to work safely. Employers who require employees to work with solvents must be aware of exposure standards and ensure these are not exceeded.

If an employee inhales a volatile substance the onset of intoxication can be rapid and severe. Effects are short term and include:

- Drowsiness.
- Disorientation.

- Double vision.
- Poor coordination.
- Slowed reaction time.
- Reduction in muscle strength.
- Dizziness.
- Fatigue.
- Nausea.
- Death as a result of irregular heart beat or suffocation.

Long term inhalation of excessive amounts of toxic substances, such as leaded petrol, can damage the brain, nervous system, liver, kidneys and bone marrow.

MEDICATIONS:

Everyone at a workplace should be alert to the fact that some medications prescribed by doctors or available 'over the counter' may affect the ability to work safely.

Side effects that could affect work performance as a result of prescription medication include, but are not limited to, drowsiness, being less alert, difficulty in concentration, slowed reaction times and decreased physical coordination. For example, antihistamines or codeine containing products prescribed or purchased over the counter for allergies, or cold medicines, can cause drowsiness.

Employers should remind employees taking medication to find out how it may affect them by consulting their doctor. During this consultation, employees should explain their work duties to the doctor in order to determine if their ability to work safely will be impaired by the medication. Employers should remind employees that they have a duty to take reasonable care for their own health and safety as well as the health and safety of persons that may be affected by their actions in the workplace, such as their co-workers.

Any directions or warnings on the medication should be read carefully and followed.

An employee is not obliged to disclose the reason why they are taking a particular medication. However, employees should still be encouraged to inform their employer and/or relevant occupational safety and health representative regarding any medication they are taking so that the implications for work safety can be assessed. This can be specified in a drug and alcohol policy or communicated to employees through other means. Other information about the potential effects of medication and what information an employee should obtain from a doctor if medication is prescribed can also be referenced in the policy.

Combining prescription medications:

Combining different prescription medications may increase or multiply the intensity or completely alter the effect of a drug. It is advisable for employees to seek advice from their doctor or pharmacist about any possible side effects arising from mixing prescription medication. Combining medication and alcohol may also alter the side-effects of medication and affect an employee's ability to work safely. Cold and flu or other over the counter tablets mixed with alcohol, for example, may impair judgment or coordination.

HAZARDOUS SUBSTANCES

Chemicals such as solvents and pesticides can affect performance in a way similar to alcohol and can make the effect of alcohol and other drugs more potent.

The OHS Regulations 2007 place duties on employers to protect people at work against risks to their health associated with the use of hazardous substances. For more information about controlling risks associated with the use of hazardous substances refer the section on Chemical Risks.

APPENDIX B:

TIPS FOR SETTING OUT A WORKPLACE ALCOHOL AND OTHER DRUGS POLICY:

Use the headings and tips below to formulate an alcohol and other drugs policy and procedures that are relevant to your workplace.

Statement

Use the information contained in this guide to introduce and discuss the problem of the use of alcohol and other drugs in the workplace and the need for development of a policy statement for the organisation. State a management commitment to provision of a safe, healthy and productive workplace and a willingness to consult with employees and their representatives. Consider the stressors in the workplace that could contribute to the harmful use of alcohol and other drugs.

Aim

Clearly state the aims and expected outcomes arising from the policy. The objectives of the policy should be clearly stated. For example, the policy should aim to:

- Maintain a safe and healthy work environment.
- Reduce the costs associated with alcohol and other drugs to the organisation and individuals.
- Link action on alcohol and other drugs issues with other occupational health and safety initiatives.
- Provide access to information on alcohol and other drugs use and encourage those with problems to seek assistance.

Scope

Specify the name of the company, the branch, the physical location and the employees covered by the policy.

Code of behaviour

Spell out the code of behaviour required by employees of all levels and work areas. This should include:

- When it is considered appropriate and not appropriate to consume alcohol and other drugs (such as prescription medication) in relation to work, and
- Acceptable standards of work performance.

Roles and responsibilities

Specify the scope of everyone's responsibility to contribute to the management of the problem.

Specify whose task it is to:

- Monitor work performance.
- Report incidents and concerns.
- Investigate and document such reports.
- Approach an employee who may be intoxicated.
- Impose a corrective measure.
- Refer an affected employee to counselling/rehabilitation.
- Keep records.
- Evaluate the policy.

Special circumstances

Some high risk duties or professions may need special requirements. Identify all safety critical positions and special requirements that apply. Specify employees who may require:

- Alcohol and other drugs testing.
- Specific training.
- Disciplinary measures for breaches.

Testing

If alcohol and/or other drug testing is used, specify the following:

- The purpose of testing for presence of alcohol or other drugs.
- The type of tests used and testing procedures, including cut-off points for a positive result.
- Whether a MRO will be used.
- Circumstances when tests are carried out.
- Who may conduct the tests.
- How and where test samples and results are to be stored, handled or destroyed.
- Procedures following a positive test including consequences (if any).
- Consequences of refusing to take a test
- Legal rights of those tested
- The grievance and complaints process, and
- How the results of the tests will be reviewed and conveyed to management eg, through the use of a MRO.

Discipline

Specify the grounds for transfer, demotion or dismissal for breaches of the policy and the number of warnings employees will be given before discipline is imposed.

APPENDIX C:

SUGGESTED ALCOHOL AND DRUGS POLICY

1. INTRODUCTION:

Alcohol, drug and other substance abuse by employees, volunteers and contractors can have serious adverse effects on their own health and safety and that of other others. [*insert name of church*] has a duty of care under the Occupational Safety and Health Acts to protect workers from any known harms. This includes the short and long term risks associated with drugs and alcohol. Recognizing employees, volunteers and contractors that are under the influence of alcohol and or drugs and those that have a problem with substance abuse is important to preserving the safety of fellow workers.

2. STATEMENT:

[*insert name of church*] is committed to the provision of a safe, healthy and productive workplace and environment for our workers, volunteers, contractors, members and visitors. We aim to achieve this via consultation with affected parties and monitoring of the church environment to ensure it is compliant with all laws and regulations and affected parties are observing their responsibilities to one another.

3. SCOPE:

This policy applies to all employees, volunteers and contractors and the use of alcohol and drugs whilst working for the church and; includes prescription or other legal drugs which have the potential to impact upon a person's ability to work safely. It includes whilst working in the church's facility and grounds, working in the community on behalf of the church and driving a motor vehicle to attend or leave any of the prescribed work.

4. DEFINITIONS AND ABBREVIATIONS:

3.1 Definition

For the purpose of this policy, drug and alcohol abuse are defined as a condition where consumption of these substances by an individual has an adverse effect on their ability to work safely and may have an adverse effect upon their health.

5. AIM:

[*insert name of church*] has a duty to ensure that all that attend its facility are not subject to unnecessary hazards. Part of this "duty to take reasonable care" relates to taking practical steps to ensure employees, volunteers and contractors are both competent and in a fit state to work safety to minimize risks to themselves and others.

We all have a duty of care to take reasonable steps to ensure our own safety and that of others. All employees, volunteers and contractors are legally obligated to be in a fit state for work and to work safety. The excessive use of alcohol, or the use of drugs, which results in a person not being able to perform their job safely, is a breach of this duty of care. This duty of care extends to confronting those suspected of not being in a fit state to work, reporting those to management and potentially stopping them from continuing working.

While [*insert name of church*] does not wish to intrude into the private lives of employees, volunteers and contractors, if drugs or alcohol have a direct impact on an individual's work performance or on safety standards, it is [*insert name of church*] responsibility to all working in or attending its facility to intervene.

To assist [*insert name of church*] in achieving our vision of zero harm, we will promote this policy to employees, volunteers and contractors and advocate all are drug and alcohol free whilst working on behalf of the church.

We will use the following strategies to achieve our objectives:

- Increase awareness of the harmful effects of drugs and alcohol in the workplace, on the individual and to others by the inclusion of this issue into induction programs;

- Make available information about the availability of referral and treatment services to overcome drug and alcohol abuse;
- Where appropriate, provide assistance to help reduce addiction or dependency on drugs and alcohol.

6. CODE OF BEHAVIOR:

Employees, volunteers and contractor are to abide by the following codes of behavior regards the following substances.

Alcohol:

Are not to have prior to or consumed quantities of alcohol whilst working for or on behalf of the church that is likely to make the person unfit for work or be a risk to the safety of others.

Illicit Drugs

Are not to have or consumed any quantity of an illegal drug and any drug that was previously deemed illegal by any government in Australia. For the sake of this policy all will be referred to as illegal drugs.

Prescription and Legal Drugs.

Are to check the manufacturers warning's and where the manufacturer warns that taking the drug may impair their judgement or performance, they must notify their supervisor and who is to determine if they will need to take sick leave.

Non-compliance:

Non-compliance with this 'Code of Behavior' will be viewed as a serious matter and treated in the same way as any breach of the churches Work, Health and Safety requirements.

Any person who is adversely affected by alcohol and or drugs will not be allowed to continue working until they are fit to do so. If any person affected by alcohol or drugs is sent home to recover, they will not be paid for the lost time and disciplinary action may be taken on return to work.

7. ROLES AND RESPONSIBILITIES:

Specify the scope of everyone's responsibility to contribute to the management of the problem.

Specify whose task it is to:

- Monitor work performance.
- Report incidents and concerns.
- Investigate and document such reports.
- Approach an employee who may be intoxicated.
- Impose a corrective measure.
- Refer an affected employee to counselling/rehabilitation.
- Keep records.
- Evaluate the policy.

Management/Supervisors:

- Lead by example in the implementation of the policy through demonstrated behaviour.
- Ensure this policy is applied fairly and consistently across the work environment.
- Respect the confidentiality of all employee personal issues.
- Ensure that all sub-contractors are aware of the Policy and any particular variations in regards to its implementation and enforcement on the work being performed.

- Act on suspicion of an individual being affected by drugs or alcohol (suspicion may be a result of observing impaired coordination, judgement, intellectual capacity or slurred speech, headache, nausea, vomiting, loss of inhibitions or smell of alcohol).
- Act in response to any accident resulting in damage to property or injury to people that is expected to incur an insurance claim, or a near miss that could have resulted in a death, permanent impairment, personal, plant or property damage.
- Ensure timely, appropriate and effective provision of assistance.

The Supervisor/Manager will instruct any such persona to immediately leave the workplace. That person must comply with the direction given by the Company. If necessary the Supervisor/Manager shall assist with arrangements to ensure the individual arrives home safely.

The affected individuals are not to be permitted back into the workplace until they are deemed to be free of any illegal drugs or the undue influence of alcohol and legal drugs.

Contractors:

All contractors have a duty of care to take reasonable care so as not to expose themselves, work colleagues or those they are working around to unnecessary risks. They are required to:

- Present themselves for work in a condition free from the effects of drugs and/or alcohol.
- Notify their manager/supervisor of any concerns as to the condition of any personal in their workplace.
- Comply with this policy, including agreeing to leave the workplace if so directed by their supervisor/manager.

Employees:

All employees have a duty of care to take reasonable care so as not to expose themselves or work colleagues to unnecessary risks. They are required to:

- Lead by example in the implementation of the policy through demonstrated behaviour.
- Present themselves for work in a condition free from the effects of drugs and/or alcohol.
- Notify their manager/supervisor of any concerns as to the condition of any personal in their workplace.
- Comply with this policy, including agreeing to leave the workplace if so directed by their supervisor/manager.

8. TESTING:

[*insert name of church*] may at its discretion or if compelled by law introduce an alcohol and/or other drug testing regime. If so employees, volunteers and contractors will be given sufficient notice of its introduction and their legal rights.

9. ASSISTANCE:

[*insert name of church*] will provide any assistance warrantied for employees and volunteers that are struggling with alcoholism or substance abuse. If affected please contact your supervisor. Your privacy will be preserved.

Anti-Bullying, Discrimination Harrassment

Equal Opportunity, Anti-Discrimination, Anti-Harassment and Bullying

MANUAL - Update: V7 15.06.14

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FORWARD

This policy manual is based upon a policy manual issued by the Victorian Employees Chamber of Commerce and adapted for church us.

EQUAL OPPORTUNITY, ANTI-DISCRIMINATION, ANTI-HARASSMENT AND BULLYING:

1. PREFACE:

The exact format and contents of this policy will vary according to the organisation. Therefore, the following policy can be used as guide and relevant changes made accordingly. However, any wording changes, other than those to insert a company or a person's name(s), may change the context, meaning or purpose of the policy and we recommend you receive advice prior to making such changes.

2. DEFINITIONS:

CCCVaT - means Christian Community Churches in Victoria and Tasmania which is an Association that aids and assists Associate Churches grow the Kingdom of God.

Deacon - is a person appointed by the Church to serve the ministry of the Church in various official capacities, as determined by the Church. [The word 'deacon' is not used in Acts 6 and therefore should not be used as biblical justification. The role traditionally prescribed as deacon has more to do with church tradition that the Bible. If some biblical passages are included the best ones would be those where 'deacons' are specifically mentioned in1 Timothy 3 & Titus 1. There is no job description for deacons.

Elder - a person appointed by the Church to primarily lead the Church. Expanded expectations of the role of an Elder are defined in 1 Tim 5:17; Titus 1:7; 1 Peter 5:1-2; 1 Timothy 3:2; 2 Timothy 4:2; Titus 1:9; Acts 20:17 + 28-31; 1 Timothy 4:13; 2 Timothy 3:13-17; Titus 1:9; James 5:14; Acts 20:35; Acts 15:16.

Manager/Management - appointed by the Church to manage a person or team of people to perform tasks defined in their job descriptions.

Pastor - legally defined as a minister of religion, is a person employed by a Church to teach and guide. Expanded expectations of a Pastor are defined in Ephesians 4:11, Acts 20:28, and 1 Peter 5:2.

Team Leader - a person appointed by the Church to lead a team of people on an assignment, mission or activity of the Church.

The Leadership Team - comprised of Deacons and Elders, formed to lead and manage the resources of the Church or a board formed under a constitution adopted by the members of the church or required under law.

3. PURPOSE:

The purpose of this document is to outline a church's's Equal Opportunity – Anti Discrimination, Anti-Harassment and Bullying Policy.

4. DUTY OF CARE:

The New Testament includes numerous provisions for the care of others and all Christians have a duty of care to one another and behave towards one another in accordance with their faith, in a manner that exemplifies their faith and demonstrates their love for one another.

Acts 20:28 New International Version (NIV)

28 Keep watch over yourselves and all the flock of which the Holy Spirit has made you overseers. Be shepherds of the church of God, which he bought with his own blood.

Mark 12:31 New International Version (NIV)

31 The second is this: 'Love your neighbour as yourself.' There is no commandment greater than these."

Matthew 7:12 New International Version (NIV)

12 So in everything, do to others what you would have them do to you, for this sums up the Law and the Prophets.

Matthew 7:1-5 New International Version (NIV)

1 "Do not judge, or you too will be judged. 2 For in the same way you judge others, you will be judged, and with the measure you use, it will be measured to you. 3 "Why do you look at the speck of sawdust in your brother's eye and pay no attention to the plank in your own eye? 4 How can you say to your brother, 'Let me take the speck out of your eye,' when all the time there is a plank in your own eye? 5 You hypocrite, first take the plank out of your own eye, and then you will see clearly to remove the speck from your brother's eye.

1 John 4:20 New International Version (NIV)

20 Whoever claims to love God yet hates a brother or sister is a liar. For whoever does not love their brother and sister, whom they have seen, cannot love God, whom they have not seen.

James 4:11-12 New International Version (NIV)

11 Brothers and sisters, do not slander one another. Anyone who speaks against a brother or sister or judges them speaks against the law and judges it. When you judge the law, you are not keeping it, but sitting in judgment on it. 12 There is only one Lawgiver and Judge, the one who is able to save and destroy. But you—who are you to judge your neighbour?

Colossians 3:12-14 New International Version (NIV)

12 Therefore, as God's chosen people, holy and dearly loved, clothe yourselves with compassion, kindness, humility, gentleness and patience. 13 Bear with each other and forgive one another if any of you has a grievance against someone. Forgive as the Lord forgave you. 14 And over all these virtues put on love, which binds them all together in perfect unity.

A church is to be committed to taking reasonable steps to ensure a workplace free of all forms of discrimination and harassment, including sexual harassment and bullying. It aims for equality of opportunity for all employees.

This policy is intended to ensure that there is a shared understanding amongst all a church's employees, temporary staff, independent contractors, volunteers and work experience personnel of a church's expectations in regards to acceptable and appropriate behaviour within the workplace.

Discrimination, harassment, sexual harassment and bullying is not only unacceptable, it is unlawful pursuant to the relevant legislation described below.

It is the primary responsibility of management to take reasonable measures to provide a working environment free from discrimination, harassment and bullying. It is the responsibility of every employee to not participate in discriminatory or harassing behaviour within the workplace. A church should aim to take practicable steps to ensure our contractors provide a similar working environment.

a church's is dedicated to implementing a proactive approach by taking reasonable steps such as educating employees; as well as continuing to monitor behaviour and endeavouring to prevent any disputes from occurring in the first instance,

even in the absence of a formal dispute/grievance.

The Leadership Team will treat all disputes confidentially, seriously and sympathetically as far as possible. However, it may be necessary to speak with other employees in order to determine what happened, to afford fairness to those against whom the complaint has been made and to resolve the complaint.

Outlined within this policy is an internal dispute resolution process to assist employees raise issues of concern. Appropriate disciplinary action may be taken against anyone found to have breached this policy.

No employee will be penalised or disadvantaged as a result of raising legitimate concerns or disputes relating to discrimination, harassment or bullying.

5. DISCRIMINATION:

The Equal Opportunity Act 2010 (Vic) prohibits unlawful discrimination in the form of direct and indirect discrimination. Discrimination is also unlawful under federal legislation, including the Age Discrimination Act 2004 (Cth), Sex Discrimination Act 1984 (Cth); Racial Discrimination Act 1975 (Cth); Disability Discrimination Act 1992 (Cth); Human Rights and Equal Opportunity Commission Act 1986 (Cth); and the Fair Work Act 2009 (Cth) which may change from time to time.

5.1 DIRECT DISCRIMINATION

Direct discrimination is treating or proposing to treat a person with a protected attribute unfavourably because of that attribute (listed below). The new test is whether or not certain treatment was less favourable to the person claiming discrimination, placing emphasis on the consequences of the treatment on the person claiming direct discrimination because of a protected attribute.

5.2 INDIRECT DISCRIMINATION

Indirect discrimination can occur when there is a requirement or condition or practice that is the same for everyone but disadvantages a person or is likely to disadvantage a person because they have one or more of the following protected attributes and which is not reasonable.

Protected attributes in Victoria include:

- Age.
- Colour.
- Descent or national or ethnic origin.
- Disability/impairment.
- Industrial activity/inactivity.
- Lawful sexual activity/sexual orientation or preference.
- Gender identity.
- Marital status, including de facto.
- Physical features.
- Political belief or activity.
- Pregnancy/breastfeeding.
- Race.
- Religious belief or activity.
- Sex.
- Status as a parent or carer.

- Personal association with someone of the above attributes.
- Irrelevant criminal conviction (under the Australian Human Rights Commission Act 1986 (Cth)).

Workplace discrimination can occur in:

- Recruiting and selecting staff.
- Terms, conditions and benefits offered as part of employment.
- Who receives training and what sort of training is offered.
- Who is considered and selected for transfer, promotion, retrenchment or dismissal.
- Any other unfavourable treatment including harassment.

It is important to note that from a legal perspective it is irrelevant whether or not the discrimination was intended.

5.3 RELIGIOUS EXCEPTIONS:

While the Equal Opportunity Act 2010 makes it against the law to discriminate against someone because of specific personal characteristics, it also recognises that discrimination may be justified in certain circumstances.

The Act includes two exceptions, general and specific, that apply to discrimination in all areas of public life. This means that discrimination may not be against the law in particular circumstances.

Under the general exception, religious bodies and religious schools can discriminate against a person on the basis of a personal characteristic in certain circumstances that include:

- Ordinating or appointing priests, ministers of religion or members of a religious order.
- Training or educating people seeking ordination or appointment as priests, ministers of religion or members of a religious order.
- Selecting or appointing people to perform functions relating to, or participating in, any religious observance or practice.

Religious bodies and religious schools can discriminate on the basis of a person's religious belief or activity, sex, sexual orientation, lawful sexual activity, marital status, parental status or gender identity where the discrimination conforms to the doctrines, beliefs or principles of the religion or is reasonably necessary to avoid injury to the religious sensitivities of people who follow the religion.

However, religious bodies and religious schools cannot discriminate on the grounds of race, disability, age, physical features, industrial or employment activity, carer status, political belief or activity, pregnancy, breastfeeding or on the basis of a personal association with a person with any protected characteristic.

Religious bodies and religious schools can also allow a person to discriminate against another person on the grounds of the person's religious belief or activity, sex, sexual orientation, lawful sexual activity, marital status, parental status or gender identity if the discrimination is reasonably necessary for the first person to comply with the doctrines, beliefs or principles of their religion.

The term 'reasonably necessary' requires an objective assessment of whether the discrimination is necessary.

6. HARASSMENT:

Harassment is unlawful under the Victorian Equal Opportunity Act 2010. A person unlawfully harasses another person if he or she makes that other person (another employee or member of the public) feel offended, humiliated or intimidated because of one of the protected attributes listed above. It may involve inappropriate actions, behaviour, comments or physical contact that is objectionable or causes offence.

It is important to note that from a legal perspective it is irrelevant whether or not the harassing behaviour was intended.

6.1 UNLAWFUL HARASSMENT MAY HAVE OCCURRED IF THE BEHAVIOUR MAKES THE VICTIM FEEL;

- Offended and humiliated.
- Intimidated or frightened.
- Uncomfortable at work.

6.2 UNLAWFUL HARASSMENT CAN INCLUDE BEHAVIOUR SUCH AS;

- Telling insulting jokes about particular racial groups.
- Sending explicit or sexually suggestive emails.
- Displaying offensive or pornographic posters or screen savers.
- Making derogatory comments or taunts about someone's race or religion.
- Asking intrusive questions about someone's personal life, including their sex life.

6.3 SEXUAL HARASSMENT:

Sexual harassment is unlawful under the Victorian Equal Opportunity Act 2010 and under federal legislation (Sex Discrimination Act 1984 (Cth)). Sexual harassment occurs when a person makes an unwelcome sexual advance, or an unwelcome request for sexual favours to another person, or engages in any other unwelcome conduct of a sexual nature in relation to another person, in circumstances in which a reasonable person, having regard to all the circumstances, would have anticipated that the other person would be offended, humiliated or intimidated. It has nothing to do with mutual attraction or consenting friendships, whether sexual or otherwise.

Sexual harassment is unlawful in the workplace, which includes any place a person goes for the purpose of carrying out any function in relation to his/her employment. The workplace can also extend to social functions.

In Victoria, co-workers can be named sole respondents in cases of alleged sexual harassment.

Some examples of sexual harassment include:

- Persistent, unwelcome demands or even subtle pressures for sexual favours or outings,
- Staring or leering at a person or at parts of their body,
- Unwelcome patting, pinching, touching or unnecessary familiarity, such as unnecessarily brushing up against a person.
- Offensive comments or questions about a person's physical appearance, dress or private life,
- Sexually explicit pictures or posters or screen savers (words and images),
- Sexually explicit telephone calls, letters, faxes, emails or voice mail messages,
- Humour such as smutty or suggestive jokes or comments,
- Innuendo, including sexually provocative remarks, suggestive or derogatory comments about a person's, physical appearance, inferences of sexual morality, or tales of sexual performance,
- Requests for sex,
- Insults or taunts based on sex, and
- Sexually explicit physical contact.

Some types of sexual harassment can also be offences under the criminal law, such as:

- Physical molestation or assault.
- Indecent exposure.

- Sexual assault.
- Stalking.
- Obscene communications (by way of telephone calls, letters, emails etc.).

7. BULLYING:

Bullying is a significant occupational health and safety issue, as it can cause harm to a person's health and wellbeing, both physical and psychological. Under the Victorian Occupational Health and Safety Act 2004 employers have a primary legal duty to provide a healthy and safe workplace. Employees also have a responsibility to abide by safety standards and to cooperate with their employer's actions to ensure a healthy and safe workplace is maintained.

Bullying may also be unlawful under federal and state anti-discrimination legislation where the bullying is linked to, or based on, one of the attributes covered by the various pieces of legislation (for example, age, sex, race, disability, etc.).

Serious cases of bullying may also be illegal under the Crimes Act (Vic) 1958 and can result in imprisonment of up to 10 years.

Workplace **bullying** is repeated, unreasonable behaviour directed toward an employee, or group of employees, that creates a risk to health and safety.

"Unreasonable behaviour" means behaviour that a reasonable person, having regard to all the circumstances, would expect to victimise, humiliate, undermine or threaten the other person.

"Behaviour" includes actions of individuals or a group, and may involve using a system of work as a means of victimising, humiliating, undermining, punishing or threatening.

"Risk to health and safety" includes risk to the mental or physical health of the employee.

The following types of behaviour, where repeated or occurring as part of a pattern of behaviour could be considered to be workplace bullying:

- Physical or verbal abuse.
- Intimidation.
- Yelling, screaming or offensive language.
- Excluding or isolating employees.
- Psychological harassment.
- Assigning meaningless tasks unrelated to the job.
- Giving employees impossible jobs.
- Deliberately changed work rosters to inconvenience particular employees.
- Undermining work performance by deliberately withholding information vital for effective work performance.

a. Other types of behaviour may also constitute bullying.

Workplace bullying can occur between a worker and a manager or supervisor, or between co-workers. Bullying does not cover situations where an employee has a grievance about legitimate and reasonable:

- Performance management processes.
- Disciplinary action.
- Allocation of work in compliance with systems.

8. VICTIMISATION:

Victimisation is unlawful under the Victorian Equal Opportunity Act 2010 (Vic). It is unlawful for a person to subject or

to threaten to subject another person to any detriment because the other person, or someone associated with the other person, has made an allegation or complaint of discrimination, harassment or bullying on the basis of a protected attribute.

9. RESOLUTION OF DISPUTES AND ISSUES OF CONCERN:

It is in the interest of any person or group who believe they have been unlawfully discriminated against, sexually harassed, bullied or victimised to take action to prevent the behaviour from recurring. The church should sensure that all disputes and issues of concern should be resolved quickly, confidentially (where possible) and wherever possible, at the lowest appropriate level. A range of internal issue resolution options are available including:

- Self-resolution.
- Informal resolution by the Pastor, Manager or Team Leader.
- Local workplace resolution involving the Leadership Team.
- Formal investigation by an external provider.

9.1 WHAT CAN AN EMPLOYEE DO IF HE OR SHE IS BEING DISCRIMINATED AGAINST?

If an employee considers he or she has been discriminated against, bullied or harassed it should be dealt with and should not be ignored, as ignoring the behaviour could be taken as tacit consent.

Anybody who experiences or witnesses discrimination, harassment or bullying is encouraged to either:

- Inform the offender that the behaviour is offensive and unacceptable and against company policy.
- Seek assistance in having the behaviour stopped. This may include reporting the issue to your immediate manager, Pastor or the Leadership Team.

Where these issues may breach occupational health and safety laws, the incident should also be reported immediately in accordance with the church's occupational health and safety policy.

9.2 WHO CAN ASSIST EMPLOYEES IN MAKING A REPORT OR COMPLAINT?

If an employee feels he or she is unable to resolve a matter, the following people can be contacted to assist them:

- Their Manager.
- Their Team Leader.
- Pastor.
- A Deacon or Elder on the Leadership Team.
- CCCVaT.

[*List the names of the foregoing contact officers*]

Employees who believe they are being bullied in the workplace may apply to the Fair Work Commission (FWC) to have the matter heard via mediation, conference or hearing. Under this provision, the FWC must process the application within 14 days and if they are satisfied that bullying has occurred may make an order to stop bullying conduct.

In addition to the above listed, you may approach the Equal Opportunity Commission, WorkSafe or the Fair Work Ombudsman for independent advice at any time.

9.3 WHAT WILL HAPPEN IF YOU MAKE A REPORT OR COMPLAINT?

Any complaints or reports of discrimination, harassment or bullying will be treated quickly, seriously and sympathetically. They will be investigated thoroughly, impartially and where possible, confidentially (when investigating some complaints confidentiality is not always possible). Managers, Pastors or Deacons and Elders must act immediately on any reports of harassment. Employees will not be disadvantaged in their employment conditions or opportunities as a result of

lodging a complaint.

9.4 WHAT WILL HAPPEN TO THE PERSON AGAINST WHOM YOU HAVE MADE A COMPLAINT?

The Leadership Team considers all forms of workplace discrimination, harassment and bullying to be unacceptable behaviour which will not be tolerated. Accordingly, where such complaints have been substantiated, appropriate disciplinary action will be taken. Such action may range, based on severity of the complaint, from a formal warning (see the church's disciplinary procedures) to termination of employment for serious breaches of this policy.

Similarly, where necessary, action will be taken against anyone including employees or independent contractors, who have been found to have discriminated against, harassed or bullied a co-worker, or any other person during the course of his/her employment or contract for services with a church's.

10. NATURAL JUSTICE:

A complaint of discrimination, harassment and/or bullying is a serious allegation to bring against someone. For this reason, while advisers may have feelings of sympathy for the complainant, and quite possibly negative feelings towards the respondent when dealing with a complaint, it is crucial to continually bear in mind the rights of the respondent as determined by the principles of natural justice. The adviser must approach the problem with neutrality.

11. DEFAMATION:

Defamation is unlawful under the Victorian Defamation Act 2005 and the Victorian common law. A person should not be deterred from making a complaint of harassment by concerns about defamation laws. Generally if a complainant only discusses the complaint with appropriate people in the workplace (Pastors/Managers/Team Leaders/Deacons/Elders) and is acting in good faith (i.e. is not making the complaint out of spite or malice or without basis), then the person will not be liable for defamation.

The church should be committed to providing an environment which is safe and free of discrimination, harassment and bullying for our employees and others with whom we associate at work. This policy has the full support and commitment of the Leadership Team. Please ensure you give your support in monitoring and avoiding practices, attitudes and traditions which lead to harassment.

A church's may amend and vary this policy from time to time.

Consequences for Breaching this Equal Opportunity – Anti-Discrimination, Anti-Harassment and Bullying Policy:

Any breach of a church's Policy may result in disciplinary action up to and including termination of employment. Disciplinary procedures that can be actioned by a church's will be in line with the church's Disciplinary Policy.

Independent contractors and other non–employees who are found to have breached this policy may result in the termination of their contract with a church's.

If an individual's conduct results in a breach under law they may also be personally liable.

12. WORKPLACE PARTICIPANT ACKNOWLEDGEMENT:

I acknowledge:

- I have received, read and understood the policy
- I am required to comply with the policy; and
- There may be disciplinary consequences if I fail to comply, up to and including the termination of my employment or contract.

Name:_____ Signature: _____

ANNEXURE 1: EQUAL OPPORTUNITY – DISCRIMINATION, HARASSMENT AND BULLYING

Frequently Asked Questions V1

Annexure 1 forms part of the church's Equal Opportunity, Anti-Discrimination, Anti-Harassment and Bullying Manual but not the a church's policy on same.

Fair Work Commission – Anti-Bullying Regulations

As of 1 of January 2014 the Fair Work Commission's (FWC) Jurisdiction now extends to hearing and determining complaints from workers who believe they have been bullied within their workplace. This has come about due to an amendment of the Fair Work Act 2009. This is a significant change which further emphasises the importance for businesses of proactive internal responses to bullying. The FWC can now make any order it deems appropriate except for pecuniary (monetary) payments.

What constitutes as bullying in accordance to the FWC

1. A worker is bullied at work if:

(a) while the worker is at work in a constitutionally covered business:

(i) an individual; or

(ii) a group of individuals;

repeatedly behaves unreasonably towards the worker, or a group of workers of which the worker is a member; and

(b) that behaviour creates a risk to health and safety.

2. To avoid doubt, subsection (1) does not apply to reasonable management action carried out in a reasonable manner.

Who can apply to the FWC?

There are several criteria in determining who is applicable to apply to the FWC:

1. The person must be a 'worker'.

A 'worker' can be an employee, contractor, contractor's employee, apprentice, trainee, volunteer or labour hire employee.

2. They must be employed by a constitutional covered business or undertaking.

Generally, a constitutionally covered business is:

a. A proprietary limited company.

b. A foreign corporation.

c. A trading or financial corporation formed within the limits of the Commonwealth.

d. The Commonwealth.

e. The Commonwealth authority.

f. A body corporate incorporated in a Territory.

g. A business or organisation conducted principally in a Territory or Commonwealth place.

Sole traders, partnerships, some State government employees, corporations whose main activity is not trading or financial may not be constitutionally covered businesses but this is a complex area of law and CCCVaT recommends you seek expert advice.

3. The alleged bullying must have occurred at work. It is important to note this is not necessarily limited to the physical workplace but generally the behaviour must have occurred during the course of the

worker's employment; and

4. There needs to be a continuing risk of the bullying occurring.

Generally this is likely to prevent workers who have left their employment from successfully bringing a claim. However, it is important to note that for those workers who continue in their employment there is no set time frame to lodge a complaint as long as the risk of bullying remains

PROCESS:

Relevant forms available at: http://www.fwc.gov.au/index.cfm?pagename=anti-bullyingapply

Step 1: lodgement of the application:

A worker is able to submit their application by filling in a F72 form from the FWC. It is not a requirement that they inform their employer before doing so. The FWC is required to begin acting upon this application within 14 days. It is important to note making an application to the FWC is a workplace right and therefore workers cannot be treated adversely for making a complaint. It is important employers act to ensure all workers are aware of this to limit the risk of any further claims.

Step 3: Response to the application:

The FWC will then notify the employer or principal and the person/s accused of the bullying behaviour and give each of them a chance to respond. They will get the notification and a copy of the application so a response can be formulated. These responses must be completed and submitted within 7 days of it being received and sent to all relevant parties (Applicant, the alleged bully/bullies, representatives, employer of the accused).

Step 4: Dealing with the application:

Upon receiving all the relevant documentation a report will be formulated, from this the FWC then has the discretion to be able to select the appropriate way to handle this matter. This could be in the form of:

a. Preliminary discussion or conference: to establish the correct avenue or following an unsuccessful mediation.

b. Mediation: A voluntary process in which all parties work together to reach a resolution in private.

c. Conference (generally private) or hearing (generally public): will allow for the FWC to be presented with all the facts and evidence and come to a decision in regards to whether bullying has occurred and how to cease it.

d. Workplace Health and Safety regulators (WHS): The FWC may refer the matter to the WHS regulator

e. Dismissal: You can request the FWC dismiss the claim if it is frivolous, no potential for success or not in accordance with the Act. Generally the FWC will be required to hold a conference or hearing to decide whether the claim should be dismissed.

Step 5: Outcome:

If the FWC finds bullying has occurred in the workplace and there is a risk it will continue to occur it can make any order it deems appropriate other than requiring financial payment. Orders could include: relocation, individual or group to stop bullying, support for the applicant, changing or enforcing the company's bullying policy.

In considering the terms of an order, the FWC must take into account:

- Any final or interim outcomes arising out of an investigation into the matter that is being, or has been, undertaken by another person or body; and
- Any procedure available to the worker to resolve grievances or disputes; and
- Any final or interim outcomes arising out of any procedure available to the worker to resolve grievances or disputes; and
- Any matters that the FWC considers relevant.

- Fair Work Commission- Anti Bullying Regulations V1 30/01/2014 – 3.

Breaching order: Although the order made by the FWC cannot be a financial payment, if the order is not followed it would be a statutory offence of a civil remedy which will attract a monetary penalty. An alleged breach must be reported within 6 years by the Fair Work inspector, relevant parties or an industrial association.

Appeal by leave of the full bench

Within 21 days of the date of the order, or a further time approved by the commission, you may appeal to the full bench of the commission. An Appeal can only be made with the commission's permission, to gain this they will consider whether it is in the public interest to do so and whether there was an error of law or of fact.

Outcome arising from another body

It is important to recognise that the commission itself does not prevent access to other forms of bullying resolution. As it was previously before the legislative amendments individuals will still have access to other avenues when bullying is occurring. In Victoria such avenues potentially include seeking intervention from an Occupational Health and Safety investigator or Equal Opportunity legislation which provides an avenue for those who feel they have been harassed or discriminated against. Workcover is also a significant area in which the financial cost of bullying can be felt within companies. The above refers to Victorian legislation in this area but their simular protections from other bodies across Australia including the Australian Human Rights and Equal Opportunities Commission. The FWC may factor in determinations in other forms of remedy, but it can make independent determinations.

What this mean for your business

These changes increase the necessity to ensure that you are safe guarding your company by having comprehensive internal bullying policies, processes and training. If a bullying allegation has been lodged from the FWC you would begin your internal management process in a response to the allegations. The only way to protect yourself fully is to ensure you take your own proactive steps in accordance with your policies and procedures. Fair Work Commission- Anti Bullying Regulations V1 30/01/2014 - 4

Questions:

If not a constitutional corporation what does this amendment mean for you?

Although your employees are not covered by the new jurisdiction, this should not change your company's approach to bullying practices in the workplace. As covered above there are other state jurisdictions in which an employee will still be able to pursue a bullying matter. It is also important to note the detrimental effects bullying can have not just legislatively but upon your organisation's culture and profitability, as it often effects employee engagement and productivity, absenteeism, performance and so on. Therefore it is important to still review your systems, training and responses to bullying.

What costs are involved?

The cost of the hearing falls on each party in terms of party to party and indemnity costs. It is possible for a cost order to be issued in which one party must cover the other parties cost, however this would only be in certain situations. This is in situations in which the claim is found to be vexatious or without reasonable cause. Application for cost must be within 14 days from when the dispute is finished. Less tangible costs include the effects on the business due to these claims such as low moral, staff absence for appearances and resources redirected. You must also consider what payment will be made for those required to appear in front of the commission in work time.

Steps that can be taken to mitigate risk of bullying:

Revisit company policies and procedures in regards to your current bullying and grievance procedures and how to handle the matters when they arise.

- Consider the processes that your business has in place including formal and informal processes.

- Continually take part in, and offer refresher training on, bully and the legislation and the process.
- Clearly state to employees what bullying is and the definition.
- Investigate all bullying claims • Consider the introduction of other supports internally, such as Contact Officers.
- Work on growing the perception that issues will be dealt with.
- Reinvigorate your company values and consider including an emphasis on respect and accountability.
- Prepare for, and accept, that serial complainants may emerge.

Strategies for dealing with a FWC claim

- Who is responsible for representing the company if 'management' is named as the perpetrator?
- What is the stance on claims against individuals (as opposed to the company), be it managers or employees? Might they be viewed as the responsibility of the individual?
- What is your company stance on payment for FWC attendance by employees?
- What is your company 'blueprint' for preparing now, prior to any claims being lodged? Are there any potential claims that you could take action to mitigate now?

Fair Work Commission- Anti Bullying Regulations V1 30/01/2014 - 5

Commentary

Bullying allegations and complaints lodged through the FWC can be quite a complex and potentially costly exercise for employers. The new regulations put a further pressure on employers to ensure they have a comprehensive process for handling and reducing bullying and inappropriate behaviour in the workplace. Developing these systems will not only help reduce your chance of a complaint being taken to the commission but will also help increase business profitability and staff satisfaction.

CCCVaT recommends seeking immediate advice on all bullying matters due to later issues that can arise if any aspect is not handled appropriately and in a timely manner.

ANNEXURE 2: EQUAL OPPORTUNITY – DISCRIMINATION, HARASSMENT AND BULLYING

Frequently Asked Questions V4

Annexure 2 forms part of the a church's Equal Opportunity, Anti-Discrimination, Anti-Harassment and Bullying Manual but not the a church's policy on same.

The new Equal Opportunity Act 2010 (Vic) increases the obligations on employers to prevent discrimination, sexual harassment and victimisation in the workplace. CCCVaT can assist you with all your equal opportunity requirements from assisting you to implement new policies and procedures that are compliant with the Act through to completing a workplace audit and implementing a detailed compliance strategy for your business.

Below are some frequently asked questions. These answers are intended as general information. If you have a specific situation or need advice we recommend you call CCCVaT.

1. What are the key features for employers under the new Equal Opportunity Act?

The Equal Opportunity Act 2010 has a number of important features:

- A positive duty to eliminate discrimination.
- A duty to provide reasonable adjustments for people with disabilities in employment, education and provision of goods and services, to help the person with a disability to perform the job or access education and goods and services.
- An extended definition of disability to specifically address genetic predisposition and behaviour that is a manifestation of a disability.
- Protection of volunteers and unpaid workers from sexual harassment in employment.
- A new dispute resolution process and direct access to VCAT for complainants.

2. What can I do to protect my company from claims of vicarious liability?

Under the new Equal Opportunity Act 2010 employers have a positive duty to take reasonable and proportionate steps to prevent discrimination, sexual harassment and victimisation. What is reasonable and proportionate will depend on your individual circumstances. The Equal Opportunity Act 2010 (Vic) (EO Act) provides that the following should be considered:

- The size of the person's business or operations.
- The nature and circumstances of the person's business or operations.
- The person's resources.
- The person's business and operational priorities.
- The practicability and the cost of the measures.

For a small business, compliance with the EO Act may involve taking steps to ensure employees are aware of the organisation's commitment to treating employees with dignity, fairness and respect and making a clear statement about how complaints from employees will be managed.

For a large company this may involve undertaking an assessment of its compliance with the EO Act and then; as a result of the assessment, developing a detailed compliance strategy that includes regular monitoring and provides for continuous improvement of the strategy.

What is 'reasonable and proportionate' will differ from company to company under the EO Act. If you need support or assistance in this new and difficult area contact CCCVaT.

3. What can I do when an employee brings a complaint to me but says they don't want anything to be done about it? What if I am aware there is an issue but no one is actually 'formally' complaining?

Under the new Equal Opportunity Act 2010 (Vic) (EO Act) employers and managers have a positive obligation to prevent discrimination in the workplace. In addition Occupational Health and Safety legislation requires that steps be taken to deal with concerns of an unsafe workplace.

If an employee makes a complaint but asks you not to do anything the first step is to talk to them about why they do not want anything to be done. Are they concerned about victimisation? Are they attempting to deal with it themselves? The answers to these questions will assist you to decide what you need to do. If the employee is concerned about victimisation this needs to be taken seriously. If the employee agrees to let you proceed it is important to take all steps to prevent them being victimised for making a complaint.

If the employee is adamant they do not wish to proceed with the matter you still have an obligation to provide a safe and discrimination free workplace. This is also the case if you are aware of an issue but do not have a specific complainant.

This can be done without breaching the employee's confidence in most instances. Rather than just focussing on the complaint, focus on the workplace. You can look at steps such as:

- Conducting refresher training for employees and managers on equal opportunity and bullying and harassment.
- Emphasising policy, which may be through a number of forums – employers are including it on meeting agendas, sending it with payslips and rosters – some employers also use it with a 'must mark as acknowledged' box when logging in to email or IT systems.
- Encouraging all managers to be proactive in preventing and dealing with any issues.
- Conducting a workplace audit to see where any problem areas are.
- Offering any affected employees access to an employee assistance program.

In some circumstances where there are allegations of severe bullying, harassment or discrimination you may have to breach an employee's confidence. In these circumstances explain to the employee the legal obligations you have and ensure they are given support through the process.

If you are unsure of your obligations or what action to take, it is important you seek advice.

4. What should I do if I get a complaint of discrimination, sexual harassment, bullying or harassment?

If an employee makes a complaint treat it seriously. It can often be tempting to ignore it and hope it goes away. If an employee has come to you with an issue or concern it is important it is dealt with.

If you have a complaints process in place, ensure that you - and your managers - follow it. If you don't have an existing policy we recommend you implement one. CCCVaT has a number of pro-forma policies available to Associates on our website.

Once a complaint has been made ensure you explain the process to all parties and ensure you document everything that is done throughout the process.

- Ensure you speak with all parties involved and apply natural justice.
- If disciplinary action is to be taken make sure you have investigated the matter properly and allowed the respondent a chance to respond to the allegations and to provide any mitigating factors.
- If you are unsure about how to investigate the matter or what steps to take it is important you seek advice and assistance before the matter becomes more serious.

CCCVaT can provide you with support in investigating the matter yourself.

5. When there is banter in the office how do I ensure I don't come across as the fun police?

Although we want to encourage positive working relationships in the office, different people have different ideas of 'fun'. Inappropriate sexual or discriminatory jokes are not fun and should not come in to the workplace.

Encourage employees to get along and enjoy themselves at work but ensure there are boundaries of appropriate workplace behaviour. Sometimes as an owner or manager you will have to be the voice of reason as the consequences for any breaches of the law are significant both for you and for individual employees.

6. What is the timeframe to lodge a complaint with Fair Work Commission and the VEOHRC?

Generally employees have up to a year to lodge a claim with the Victorian Equal Opportunity and Human Rights Commission but this can be extended if the employee can show good reasons for the delay. To lodge a general protections claim involving dismissal with the Fair Work Commission, employees have 21 days from their dismissal. If it does not involve dismissal the employee has up to six years to make a claim.

Employees who believe they are being bullied in the workplace may apply to FWC for an order to stop the bullying. Under this provision, the FWC must process the application within 14 days upon receiving the application if they are satisfied that bullying has occurred. Importantly, while the FWC will have authority to issue orders for the bullying to stop, no order for payment or pecuniary amount can be issued under this provision.

7. Lawful sexual activity – what does that mean?

Lawful sexual activity is defined in the EO Act as "engaging in, not engaging in or refusing to engage in a lawful sexual activity". The courts have used the second reading speech for the bill which eventually became the EO Act 1995, to clarify its meaning. The then attorney general in that speech refers, when she speaks of lawful sexual activity, to bestiality as an example of a sexual activity that would not be covered by that term1. Although this helps us understand what lawful sexual activity is not; it does not give a definite interpretation of what lawful sexual activity is.

1 See Cassidy v Leader Associated Newspapers Pty Ltd [2002] VCAT 1656 (21 November 2002).

The Anti-Discrimination Act 1991 (Qld) states lawful sexual activity as meaning a person's status as a lawfully employed sex worker, whether or not self-employed. But as the term in Victoria has not been defined in this manner we recommend employers assume that this means all lawful sexual activity and is not limited to lawful prostitution. For Victoria, this section covers any sexual activity that is legally permissible in Victoria, including legal prostitution.

8. Has the term 'indirect discrimination' been removed?

No, although it is not specifically defined in the Act. The terminology in the Act relates to unlawful actions. Indirect discrimination is referenced in the Act as occurring if you impose or propose to impose a practice, condition or requirement that has or is likely to have the effect of disadvantaging people with an attribute which is not reasonable.

An example of indirect discrimination may be having height restrictions on jobs. Although this does not appear to target anyone and the rule is 'the same for everyone', this could have the impact of disadvantaging particular races, or a gender.

9. How do individual flexibility arrangements (IFAs) interact with the modern awards and the family responsibilities under the Victorian Equal Opportunity Act 2010 and how do I get out of an IFA if it no longer suits?

Flexibility terms within modern awards will only allow IFAs to vary:

- Arrangements for when work is performed such as working hours.
- Overtime rates.
- Penalty rates.
- Allowances.
- Leave loading.

The IFA should include information about how it may be terminated. Generally, an IFA may be terminated by agreement or by either party giving the required written notice. Modern awards require following notice periods:

- For IFA's created prior to December 4 2013, a 4 week written notice period applies.
- For IFA's created on or after December 4 2013 a 13 week written notice period will apply.

The above notice requirements do not affect employees covered by an enterprise agreement.

Because the IFA must satisfy the BOOT (better off overall test), it generally will not be considered discriminatory especially if it is done to assist someone who has carer or parental responsibilities. An IFA in an enterprise agreement can generally be ended by providing 28 days' notice but VECCI recommend that you meet with the employee before a decision has been made to discuss the reasons you are considering terminating the IFA and to discuss any alternative options.

Employers cannot reasonably refuse to accommodate a person's carer or parental responsibilities so it is important you have clear, concise reasons for the termination of the IFA.

CCCVaT recommends you advise the employee that they are welcome to have a support person present if they need to.

If the termination of the IFA will result in a major change to the person's employment there should be consultation prior to any final decision being made. In addition you must genuinely consider any alternative proposals put forward by the employee.

10. What do I do if I have two employees who have made claims against each other?

It is important in these situations that you address all complaints seriously and separately. Don't assume that an employee has only made a complaint because a complaint has been made against them. This may have occurred however the employee may still have a genuine grievance.

CCCVaT recommends you investigate all matters that have been raised but deal with them as two separate complaints. It is important that you treat all complainants fairly and equally and ensure you are not biased in favour of the first complainant. In situations like these it can often be of benefit to engage an external consultant to investigate the matters.

11. Are there any exemptions or exceptions to the Act?

The small business exemption has now been removed. Previously, small business was exempt for the purposes of recruitment exercises.

There are exceptions in the Act relating to the areas of accommodation, clubs, education, provision of goods and services, and sport.

The Victorian Civil and Administrative Tribunal (VCAT) Anti-Discrimination List may grant a temporary exemption from the provisions of the Equal Opportunity Act 2010 if it believes that doing so would further the Act's goal of promoting equal opportunity.

See Victorian Equal Opportunity & Human Rights Commission:
http://www.humanrightscommission.vic.gov.au/index.php?option=com_k2&view=item&id=1186:exemptions&Itemid=684

Some examples of recent exemptions granted by VCAT and listed on the VHREOC website are:

- An employment round at a government department where applications are limited to indigenous people, with the aim of improving the rate of indigenous people employed in the public sector in Victoria.
- A local council closing the public swimming pool early on two nights per week, and limiting admission to women, to enable Muslim women who cannot swim in mixed company to use the pool.

Safety considerations may also frequently interact with matters under the EO Act. While this is not specifically referenced in the EO Act, safety must be paramount in the workplace and employers are required to protect the health and safety of all workers. Where these issues overlay, VECCI recommends seeking specific advice.

12. Our managers are concerned about their own liability – what can I do to support them and the business?

Manager should be fully trained in both the requirements under the Act and also the requirements of your business when

it comes to receiving and managing complaints. Unfortunately the initial stages of complaint handling are often handled inappropriately, which leads to a divided workforce and ultimately costs for the business.

You should ensure that your expectations throughout each stage of the employment cycle are clearly articulated and documented. For example, during a recruitment exercise, this includes ensuring that:

- The parties who are conducting interviews are aware of their obligations and do not ask questions that are irrelevant to the job (but relevant to a discrimination claim),
- Any testing is consistent with the inherent requirements of the role.
- Any feedback to unsuccessful candidates is delivered in a careful and consistent manner.
- Any selection decisions are based on merit – and that you can demonstrate this if called upon to do so.

Training for general people management functions is unfortunately often overlooked until there is an issue. VECCI proactively engages with a number of employers – and sees the results of this investment – in the delivery of on-site training for support throughout the employment cycle, including Recruitment and Selection; Performance Management Conversations; Engagement and Retention; and Confidently Managing Disciplinary and Termination matters.

Employers should ensure that their managers have the right 'tools' to confidently approach the day-to-day situations involved in managing a workforce as any issues arise. This is often where the first signs of an issue, or unrest, will be detected and represent a strong opportunity to mitigate risk as well as seeing the benefits of an engaged workforce.

On top of this, it is important that your people understand the channels in your business for raising issues and the support that is available for them.

#Asbestos

HOW TO MANAGE AND CONTROL ASBESTOS IN THE WORKPLACE

Code of Practice - FEBRUARY 2016

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FORWARD:

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

SCOPE AND APPLICATION:

This Code provides practical guidance for persons conducting a business or undertaking on how to manage risks associated with asbestos and asbestos containing material (ACM) at the workplace and thereby minimise the incidence of asbestos-related diseases such as mesothelioma, asbestosis and lung cancer.

This Code provides information on how to identify the presence of asbestos at the workplace and how to implement measures to eliminate or minimise the risk of exposure to airborne asbestos fibres.

In some cases, the most appropriate control measure determined may be to remove the asbestos. The Code of Practice: How to Safely Remove Asbestos provides further guidance for asbestos removalist's so asbestos can be removed whilst eliminating, or where this is not possible, minimising the exposure of workers and other persons to airborne asbestos.

Other laws relating to matters such as environmental protection, public health, building and construction and local government regulation may apply in addition to the WHS Act and WHS Regulations.

Some chapters of this Code will apply to asbestos that is present in domestic premises when the premises becomes a workplace.

How to use this Code of Practice:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to sections of the WHS Act and Regulations to provide context with legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that these legal requirements exist and must be complied with.

1. INTRODUCTION:

1.1 WHAT ARE THE PROHIBITIONS ON ASBESTOS IN THE WORKPLACE?

Regulation 419: A person conducting a business or undertaking 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.

The final prohibition for asbestos in the workplace came into effect on 31 December 2003.

These prohibitions do not apply if the work involving asbestos is any of the following:

- Genuine research and analysis.
- Sampling and identification in accordance with the WHS Regulations.
- Maintenance of, or service work on, non-friable asbestos or ACM, fixed or installed before. 31 December 2003, in accordance with the WHS Regulations.
- Removal or disposal of asbestos or ACM, including demolition, in accordance with the WHS Regulations.
- Transport and disposal of asbestos and asbestos waste in accordance with jurisdictional legislation.
- Demonstrations, education or practical training in relation to asbestos or ACM.
- Display, or preparation or maintenance for display, of an artefact or thing that is, or includes, asbestos or ACM.
- Management in accordance with the WHS Regulations of in-situ asbestos that was installed. or fixed before 31 December 2003.
- Work that disturbs asbestos during mining operations that involve the extraction of or exploration for a mineral other than asbestos.
- Laundering asbestos-contaminated clothing in accordance with the WHS Regulations.
- Where the regulator approves the method adopted for managing risk associated with asbestos.

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 removalist's and their workers must be competent to carry out asbestos removal work and, except in limited circumstances, must be licensed. Further details on who can remove asbestos can be found in the WHS Regulations and the:

Code of Practice: *How to Safely Remove Asbestos*.

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).

To complement the ban on the importation, manufacture and use of all forms of asbestos and asbestos-containing products from 31 December 2003, the import prohibition on asbestos under the Customs PI Regulations was also introduced.

If plant or other materials are imported from countries where asbestos is not 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>.

1.2 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 reasonably practicable, that 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 in the table below.

Duty holder	Responsibilities
Person conducting a business or undertaking (PCBU)	**Control risk of exposure:** • 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. • Must ensure the exposure standard for asbestos is not exceeded at the workplace. **Health monitoring:** • 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.

Duty holder	Responsibilities
	• Must 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. • Must pay all expenses for health monitoring, obtain report and keep records of all health monitoring. **Training and use of equipment:** • 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 • 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. **Controlling the use of equipment:** • Must not use, or direct or allow a worker to use, certain equipment on asbestos and ACM. **Asbestos-related work:** • 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 • Must 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 • Must ensure the asbestos-related work area is separated from other work areas at the workplace, signs are used to indicate where the asbestos-related work is being carried out and barricades are used to delineate the asbestos-related work area • Must 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 • Must ensure that decontamination facilities (including containers and labels labelled in accordance with the GHS) are available when asbestos-related work is being carried out • Must 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 • Must ensure, where personal protective equipment (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.
PCBU with management or	**Identifying or assuming asbestos or ACM:**

Duty holder	Responsibilities
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. • May identify asbestos or ACM by arranging a sample of the material to be analysed. **Indicating presence and location:** • Must 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). **Asbestos register:** • Must ensure an asbestos register is prepared, maintained, reviewed and kept at the workplace. It must be readily available to workers, their health and safety representatives and other persons • Must ensure, when management or control of the workplace is relinquished, a copy of the asbestos register is given to the person assuming management or control. **Asbestos management plan:** • 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 health and safety representatives and other persons. **Naturally Occurring Asbestos (NOA):** • Must 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. **Demolition and Refurbishment Work:** • 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 to below the exposure standard and notify the regulator about the emergency.

Duty holder	Responsibilities
PCBU carrying out demolition or refurbishment work	**Demolition and Refurbishment Work** • Must, prior to the demolition or refurbishment work being carried out: o Obtain a copy of the asbestos register for the workplace from the person with management or control before the work commences. o 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 assume it's presence). o 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 o Ensure asbestos at domestic premises that is likely to be disturbed by the demolition or refurbishment is identified and, if reasonably practicable, removed before the work starts. o 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.

In some cases, there may be more than one person with management or control of a workplace. For example:

- A person with management of a workplace is a tenant.
- A person with control of a workplace has the power to make decisions and changes to the structure and use of the workplace. This person will usually be the owner of the workplace or a representative of the owner and may:
  - own the workplace and engage workers to carry out work there;
  - own the workplace but lease it to another person conducting a business or undertaking at the workplace; or
  - have management or control over the workplace, for example a property management group or agent.

1.3 THE MEANING OF KEY TERMS:

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

Asbestos means the asbestiform varieties of mineral silicates belonging to the serpentine 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) means any material or thing that, as part of its design, contains asbestos.

Asbestos-contaminated dust or debris (ACD) means dust or debris that has settled within a workplace and is (or assumed to be) contaminated with asbestos.

Asbestos-related work means 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 means a person conducting a business or undertaking who carries out asbestos removal work.

Asbestos removal work means:

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

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 period of four hours in accordance with:

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

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

GHS means Globally Harmonised System of Classification and Labelling of Chemicals.

In-situ asbestos means asbestos or ACM fixed or installed in a structure, equipment or plant but does not include naturally occurring asbestos.

NATA-accredited laboratory means 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) means the natural geological occurrence of asbestos minerals found in association with geological deposits including rock, sediment or soil.

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

Respirable asbestos means an asbestos fibre that:

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

2. MANAGING RISKS ASSOCIATED WITH ASBESTOS AND ACM:

2.1 WHAT IS INVOLVED IN MANAGING RISKS?

Regulation 420 A person conducting a business or undertaking 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.

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 example, removing the asbestos).
- Substituting the risk, isolating the risk or applying engineering controls (for example, 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. Chapter 7 of this Code provides more information on the different control measures that can be used.

General guidance on the risk management process is available in the:

Code of Practice: *How to Manage Work Health and Safety Risks*.

Consulting your workers

Section 47: The WHS Act requires the person conducting a business or undertaking 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 work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation with workers and their health and safety representatives is a critical part of managing work health and safety risks.

Consulting with and involving workers in the identification and safe handling of asbestos can assist in ensuring that safety instructions and safe work practices are complied with.

Health and safety representatives must have access to relevant information on matters that can affect the health and safety of workers, for example asbestos exposure data and the asbestos register.

Consulting, cooperating and coordinating activities with other duty holders

Section 46: The WHS Act requires that persons conducting a business or undertaking consult, cooperate and coordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

Sometimes there may be other businesses that are involved in the same activities or share the same workplace. For example:

The owner of an arcade is renovating one of the shops for a new tenant to move into. The building owner has engaged a number of contractors to carry out the renovation work including demolishing a wall. The building owner has management and control over the workplace and is responsible for ensuring the current asbestos register is updated due to the work that is being carried out. The building owner consults other tenants that may be impacted by the renovation work on the identification of asbestos and what will need to be done if asbestos is disturbed. As the work begins, the building owner, contractors and tenants all co-operate with each other and co-ordinate their activities to protect any persons from potential exposure to asbestos.

Further guidance on consultation is available in the:

Code of Practice: *Work Health and Safety Consultation, Cooperation and Coordination*.

2.2 IDENTIFYING IF ASBESTOS OR ACM IS AT THE WORKPLACE:

This section does not apply to naturally occurring asbestos (NOA).

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

Identifying asbestos or ACM is the first step in managing the risk of exposure to asbestos in the workplace. As there may be more than one person in the workplace responsible for this duty, it is important that all duty holders consult, cooperate and coordinate with each other as well as consulting with workers and health and safety representatives, for example the person with control of the workplace may carry out the task of identifying asbestos with the person who has day-to-day management of the workplace to ensure it has been done accurately.

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.

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.

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.

There are a number of factors that may be taken into account to identify or assume that asbestos is present in a workplace. These include:

When was the building constructed?	Asbestos was widely used as construction and insulation material in buildings until the late 1980s when bans on its manufacture and use were put in place. However, the use of asbestos was only completely prohibited on 31 December 2003. As the bans were not absolute prior to 2003 and building materials may have been stockpiled, stored, or recycled and used, it is possible that asbestos may be present in buildings that were constructed up to 31 December 2003 and possibly later.

Were there any refurbishments or additions to the building prior to 31 December 2003?	Any refurbishment or extensions to the original building prior to 1990 and potentially up to 31 December 2003 may have involved the use of asbestos. Even if the original parts of the building did not contain asbestos, it should not be assumed that subsequent additions have no asbestos.
What type of material was used to construct the building?	The main construction materials used are made from timber, brick, steel and cement sheet. If cement sheet is present and was installed up until 1990, it is likely to contain asbestos bonded to the cement particles. For example, a roof made from corrugated cement sheeting is likely to contain asbestos. Areas of buildings that are prone to wet conditions may contain asbestos in the walls and floors due to its hardiness and waterproofing qualities compared to other materials. For example, bathrooms, toilets and laundries may have asbestos sheeting or vinyl tiles. Likewise, pipes throughout the building that carry water and sewage may also contain asbestos.
Talk to designers, manufacturers or suppliers of plant, or refer to design plans	Asbestos may be present in specific parts of the plant in a workplace as it was used in gasket and friction brake products. Despite a large reduction in its use, chrysotile asbestos was still being used in some specific applications until recent years, including rotary vane vacuum pumps and in gaskets for certain types of equipment. If there is plant that was designed, built and installed prior to 1 January 2004, the supplier, manufacturer or designer of the plant should be consulted to find out if asbestos is present and, if possible, obtain this advice in writing. If this is not possible, review the design plans and seek advice from an experienced engineer or plant designer. Quality assurance systems or checks should be in place to confirm whether asbestos is present.
Talk to workers who have worked at the workplace for a long time	Speaking with experienced workers will assist in the identification process as they may be aware of the history of the building, including its age, construction, renovation or repairs, and may know where asbestos is located in the workplace.
Visually inspect the workplace to identify asbestos, ACM and inaccessible areas	A thorough inspection of all areas of the workplace must be conducted, including all buildings, structures, ceiling spaces, cellars, shafts, storage areas and wall cavities. Material needs to be considered to contain asbestos unless proven otherwise if: • it cannot be identified • there is uncertainty as to whether it contains asbestos • it is inaccessible. The design plans for a building, structure, ship or plant may assist in identifying inaccessible areas, as would discussion with builders, architects, manufacturers of plant and maintenance workers. Knowledge of materials used in the construction of the building or experience and findings from inspections of similar sections of the building (or similar buildings) may also assist.
Take notes and photographs	Taking notes and photographs while the inspection is being conducted can assist in producing the asbestos register.

2.3 ASSUMING ASBESTOS OR ACM IS PRESENT:

This section does not apply to NOA.

Regulation 422: 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 workplace 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.

If there is uncertainty as to whether asbestos is present in any part of a structure or plant, the person with management or control of the workplace can either assume asbestos is present and treat it with appropriate caution based on the level of risk or have a sample analysed. If it is assumed to be asbestos, it is considered to be asbestos for legal purposes. There is no need to take a sample for analysis and identification in all circumstances. This means the suspect material can remain undisturbed and the time and cost of sampling and analysis is avoided.

The person with management or control of a workplace can assume asbestos or ACM is not present as long as this assumption is based on reasonable grounds, which may include:

- A workplace is constructed post 1990 and there is no plant or equipment made prior to 2004.
- Pre-2004 buildings where the building is constructed (including the roof) wholly of metal, brick or concrete, and has no internal walls that are made of fibro, gyprock or similar cladding, for instance a corrugated iron shed or a colourbond type warehouse building constructed of double brick with bare brick internally. Flooring (vinyl tiles), switchboards and under eaves lining should also be considered
- Where a register indicates that all the identified and assumed asbestos has been removed.

Once the presence and location of asbestos has been assumed:

- All requirements for managing asbestos must be followed until the material is removed or testing has confirmed that it is not or does not contain asbestos.
- The workplace asbestos register must include all the presumptions made about materials in the workplace with a simple, generic statement such as, 'Roof sheeting is presumed to contain asbestos' or 'All underground conduits are presumed to contain asbestos.'

Inaccessible areas

If there are inaccessible areas in the workplace that a competent person has identified as likely to have asbestos or ACM, it must be assumed they contain asbestos until they are accessed and it is determined whether asbestos is present or not.

As a general rule, an inaccessible area is an area that cannot be accessed during normal daily activities or routine maintenance. The following areas are not regarded as 'inaccessible areas' and must be inspected or assumed to contain asbestos:

- Locked rooms.
- Crawl spaces.
- Basement and cellars.
- Storage areas.
- Ceiling spaces.

- Fire doors.
- Locked security safes.

Accessing fire door and security safe cores to determine whether they contain asbestos may create a risk, for example drilling can result in the release of airborne asbestos. If this is the case, cores should not be accessed and must be assumed to contain asbestos until otherwise proven (for instance, during maintenance when access is obtained) or information is obtained from the supplier. Fire doors may have a compliance tag on the door jamb stating the fire rating and a compliance date. This can provide an indication of whether the door is likely to contain asbestos.

Examples of inaccessible areas that may contain asbestos or ACM are:

- A cavity in a building that is completely (or almost completely) enclosed and suspected of containing asbestos (based on where asbestos is located elsewhere in the building) and access is only possible through destruction of part of the walls of the cavity.
- The inner lining of an old boiler pressure vessel (information on this type of vessel suggests it contains asbestos) and the inner lining is not accessible due to the design and operation of the boiler and access can only be via partial destruction of the outer layer.
- Vinyl tiles that may contain asbestos, which have had a number of layers of non-ACM placed over them and secured, where the layers above it have been well secured and require some form of destruction in order to access the vinyl that may contain asbestos.
- Enclosed riser shafts in multi-storey buildings containing cables that may be insulated with ACM.
- Air-conditioning ducts that may contain asbestos gaskets and linings.

2.4 ARRANGING A SAMPLE TO IDENTIFY ASBESTOS:

This section does not apply to NOA.

Regulation 423 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, or
• a laboratory operated by the regulator.

It can be difficult to tell whether a material contains asbestos simply by looking at it, unless it is labelled. If a material has been imported from overseas, it may not be labelled as containing asbestos or it may only be labelled if the materials contain more than 10% asbestos. Therefore, a sample should be taken and analysed unless the decision was made to assume it is asbestos.

Only a competent person may take the samples for analysis because of the increased health risk of fibres being released during the process. If the sampling process is conducted incorrectly, it can be more hazardous than leaving the material alone. All asbestos samples must be analysed by a NATA-accredited laboratory or one that is approved or operated by the relevant regulator. Any sample taken should be sealed within a container, or a 200 µm polythene bag, and appropriately labelled.

Once the results of the sampling are known, the person with management or control of the workplace must ensure the asbestos register is updated indicate that the material is asbestos or is assumed to be.

If asbestos is stable, non-friable and will not be disturbed, it should be left alone. Only material that is damaged or will be disturbed should be sampled. If the material may contain asbestos and it is decided not to take samples, an

assumption must be made that the material contains asbestos.

Appendix A provides a procedure that a competent person can follow when undertaking sampling.

2.5 INDICATING THE PRESENCE OF ASBESTOS IN THE WORKPLACE:

This section does not apply to NOA.

Regulation 424: 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.

All identified or assumed asbestos, including where the asbestos is inaccessible, must be clearly indicated. If it is reasonably practicable, labels must be used to identify the material as containing asbestos. However, signs may be more appropriate to use.

Examples of labels or signs that can be used to indicate the location or presence of asbestos or ACM are shown at Appendix B. These examples provide an indication of the words that may be used—these words are not mandatory.

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.

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 weatherproof, 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.

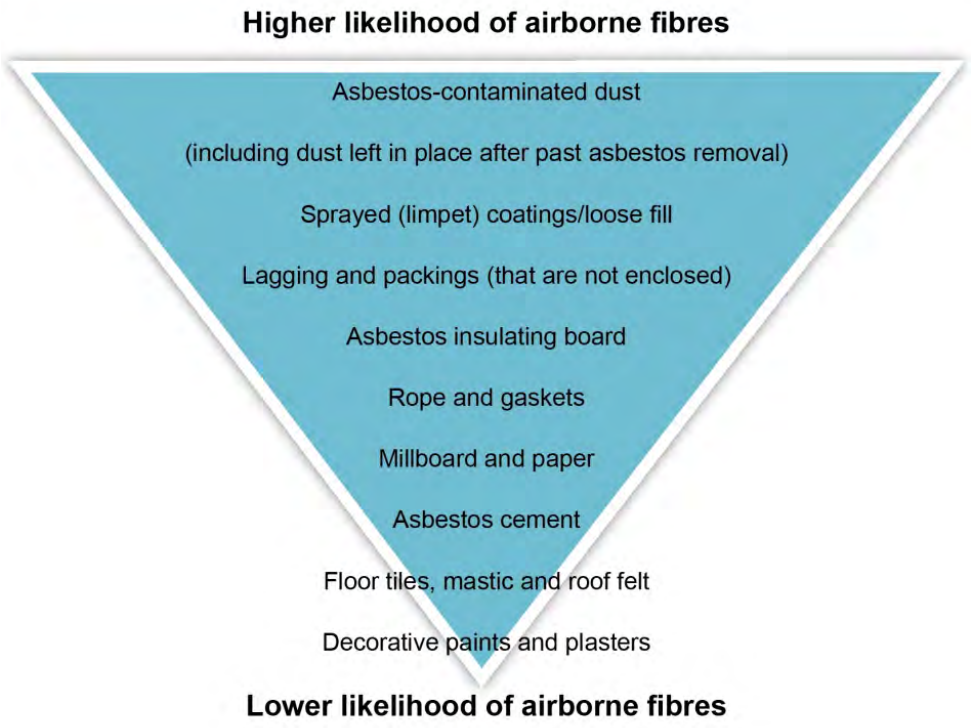
2.6 ASSESSING THE RISK OF EXPOSURE:

This section does not apply to NOA.

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.

The type of material that binds asbestos fibres will influence the potential for airborne asbestos to be released into the air from different asbestos or ACM. For example, a loosely bound sprayed (or limpet) coating is more likely to release fibres when disturbed than asbestos cement in which fibres are firmly bound.

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.



When deciding if there is a risk to health from asbestos, consider whether the asbestos or ACM is:

- In poor condition.
- Likely to be further damaged or to deteriorate.
- Likely to be disturbed due to work practices carried out in the workplace (for example, routine and maintenance activities and their frequency).
- In an area where workers are exposed to the material.

A visual inspection of the material, its location and an understanding of the work practices at the workplace will assist this decision.

Asbestos-related work activities (including maintenance) plus unusual and infrequent activities (such as emergency activities) need to be considered. Also take into account the proximity of the asbestos or ACM to where employees work, as this can affect the potential for exposure if asbestos fibres become airborne.

The following are examples of activities that could pose a risk to health:

- Forklifts driving adjacent to asbestos cement (AC) sheet walls may damage these sheets from accidental impacts during the course of work.
- Plumbers working on a long pipe that does not have asbestos insulation where the work is being done may cause disturbance to asbestos-containing insulation on the pipe some metres away.
- Electricians wiring in a ceiling space sprayed with material containing friable asbestos may disturb this material.
- Acid fumes from an acid bath located next to an asbestos cement wall and below an asbestos cement roof may cause deterioration of the asbestos material over time.

3. ASBESTOS REGISTER:

This chapter does not apply to domestic premises or NOA.

Regulation 425: 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 up-to-date.

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.

3.1 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; and
  - the location, type and condition of the asbestos.
- 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.

Appendix C provides a template of an asbestos register, while Appendix D provides an example of how it should be completed.

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.

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.

Persons conducting a business or undertaking 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 health and safety representative.

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 that 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 recorded in the asbestos register. However, if plant is often at the workplace (for example, where the company specialises in repairing plant that typically contains asbestos), 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.

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.

3.2 REVIEWING AND REVISING AN ASBESTOS REGISTER:

Regulation 426: 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; or
- 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.

3.3 ACCESSING AN ASBESTOS REGISTER:

Regulation 427: The 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.
- Health and safety representatives who represent workers that carry out or intend to carry out work at the workplace.
- A person conducting a business or undertaking who has carried out, carries out or intends to carry out work at the workplace.
- A person conducting a business or undertaking who has required, requires or intends to require work to be carried out at the workplace.

Where work is being carried out or is about to be carried out at the workplace by a person conducting a business or undertaking and that work involves a risk of exposure to airborne asbestos, the person with management or control of the workplace must provide a copy of the asbestos register to that person.

A copy of the asbestos register should be kept at the workplace to ensure it is accessible.

3.4 TRANSFERRING AN ASBESTOS REGISTER:

Regulation 428: If the person with management or control of a workplace plans to relinquish management or control (for instance, selling the workplace or the business or undertaking), they must ensure, so far as is reasonably practicable, that a copy of the asbestos register is given to the person who is assuming management or control of the workplace.

4. ASBESTOS MANAGEMENT PLAN:

Regulation 429: 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.

4.1 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 plan 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.

4.2 REVIEWING AN ASBESTOS MANAGEMENT PLAN:

Regulation 430: The 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 health and safety representative 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.

4.3 ACCESSING AN ASBESTOS MANAGEMENT PLAN:

Regulation 429: The 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.
- Health and safety representatives who represent workers that carry out or intend to carry out work at the workplace.
- A person conducting a business or undertaking who has carried out, carries out or intends to carry out work at the workplace.
- A person conducting a business or undertaking 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.

5. MANAGING OTHER ASBESTOs-related risks:

5.1 NATURALLY OCCURRING ASBESTOS:

Regulation 431-434: 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.

What is NOA?

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.

Requirements to manage NOA:

Due to the difficulties in fully describing the location and extent of a NOA deposit in an asbestos register, there is no requirement for NOA be listed in an asbestos register. However, any NOA identified or assumed at a workplace must be included on the asbestos management plan for the workplace or be the subject of a new asbestos management plan. This is to ensure steps are put in place, as with all other asbestos encountered in workplaces, to ensure that risks of exposure from NOA are assessed and managed.

Preparing an asbestos management plan:

When preparing an asbestos management plan, the following should be considered:

- Isolating the workplace or part of the workplace until controls are in place.
- Deviating excavation to ensure avoidance of the deposit, where possible.
- Using sealed excavation or mining equipment (air-conditioned cabins with filtered air).
- Maintaining regular surveillance of the rock by a competent person to ensure minimal disturbance of suspected fibrous minerals.
- Developing procedures for the safe disposal of asbestos waste, if required.

- Educating the workers in safe work practices.

Information on the contents, review and accessibility of the asbestos management plan can be found in Chapter 4 of this Code.

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 is 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.

Training of workers:

Training on the hazards and risks associated with NOA must be provided to workers who carry out work where NOA is found. Section 6.3 of this Code provides further information on training workers about asbestos.

5.2 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.

The Assessment of Site Contamination National Environmental Protection Measure (NEPM)

<www.nepc.gov.au/nepms/assessment-site-contamination> sets out the general principles for assessment and remediation of sites contaminated with a number of hazardous materials including asbestos. It is recommended that a person conducting a business or undertaking who has a workplace that is, or is suspected of being, contaminated with asbestos should engage specialists in accordance with the competencies found in the NEPM.

5.3 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: 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 person conducting a business or undertaking who will carry out demolition or refurbishment at a workplace must obtain a copy of the asbestos register before they commence the work.

Examples of demolition may include:

- Complete dismantling of a decommissioned industrial plant.
- Total destruction of a building or part of a building.
- Total destruction of an old boiler for the purpose of disposal.

Examples of refurbishment may include the partial dismantling of:

- A boiler for the purpose of cleaning and repairing.
- Large plant in order to access and remove asbestos-containing gaskets for the purpose of replacement with non-asbestos-containing gaskets.
- A building by removing sections of an asbestos cement roof.
- Part of a building for the purpose of renovation.

Demolition and refurbishment work does not include minor routine maintenance work, or other minor work:

- Minor maintenance work includes routine work that is small scale, often short in duration and may be unscheduled. This work may require the partial dismantling of a structure or plant and may include the removal of asbestos or ACM such as gaskets or brake components, for example a piece of plant to remove an asbestos-containing gasket, a passenger lift or press machine to remove an asbestos-containing brake component, or a piece of plant for the purpose of cleaning or repair.
- Minor work includes small tasks that are of short duration, such as cutting a small hole or hand-drilling up to a few holes in an AC sheet. It is not routine or regular such as planned maintenance. It is incidental work that can be done quickly and safely within minimal control measures required to ensure safety. Examples include cutting a small hole into an asbestos-containing eave to install a cable, removal of an asbestos-containing vinyl tile to install a plumbing fixture, or hand-drilling a few holes into an AC sheet to attach a fitting.

Reviewing the asbestos register:

When reviewing the asbestos register, the person with management or control of the workplace or plant should consider the following questions:

- Where is the asbestos located in relation to the proposed demolition or refurbishment?
- Are there any inaccessible areas that are likely to contain asbestos and that will be disturbed as a result of the demolition or refurbishment?
- What is the type and condition of the asbestos?
- What is the quantity of asbestos?
- What is the method of demolition or refurbishment and how will it affect the ACM?
- If the asbestos will be disturbed during the demolition or refurbishment, can it be removed safely before work commences and how can this be done?

What to do if the asbestos register indicates that asbestos is present:

If the asbestos register identifies that asbestos or ACM is present, the person with management or control of the

workplace must ensure all asbestos likely to be disturbed is identified and removed, so far as is reasonably practicable, before the demolition or refurbishment work starts.

The WHS Regulations allow for the demolition of part of a structure or plant in order to access in-situ asbestos so it can be removed. For example, part of a wall may be demolished to access asbestos located in the wall cavity so it can be removed prior to further demolition.

For demolition work, if an emergency occurs, the person with management or control of the workplace must ensure a procedure is developed before the demolition work starts. The procedure must outline how to minimise the risk of exposure of workers and persons in the vicinity of the demolition site and ensure the exposure standard is not exceeded, so far as is reasonably practicable. The person must also provide the regulator with written notice of the emergency immediately after they become aware of the emergency and before the demolition starts.

Note: An emergency can occur if a building, structure or plant is structurally unsound or a collapse of the building, structure or plant is imminent.

If there is no asbestos register at the workplace

If there is no register for the workplace, the person who is carrying out the demolition or refurbishment work must not carry out the work until a competent person determines whether asbestos or ACM is fixed to or installed in the structure or plant.

If a competent person has reasonable grounds to be uncertain as to whether or not asbestos is present, before commencing demolition or refurbishment work the person carrying out the work must assume it is present. If it is determined or assumed to be present, the person carrying out the work must inform the occupier or owner (if it is domestic premises) or the person with management or control in any other case.

- **Demolition** – Once the person with management or control of the workplace or plant has been notified that asbestos is present and demolition work is to occur, they must decide whether the asbestos is likely to be disturbed by the work. If it is likely to be disturbed they must ensure, so far as is reasonably practicable, that the asbestos is removed before the work commences.
- **Refurbishment** – Once the person with management or control of the workplace or plant has been notified that asbestos is present and refurbishment work is to occur, they must decide whether the asbestos is likely to be disturbed by the work. If it is likely to be disturbed they must ensure, so far as is reasonably practicable, that the asbestos is removed. Where reasonably practicable, asbestos should be removed prior to refurbishment, renovation or maintenance rather than implementing other control measures, such as enclosure or sealing.

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.

- **Demolition** – A person who is engaged to conduct demolition work at a house (which has become their workplace) must identify asbestos under their management or control that is likely to be disturbed by the demolition work. They must ensure, so far as is reasonably practicable, that the asbestos is removed before the work commences.

  If an emergency occurs, the person carrying out the demolition work at the domestic premise must ensure, so far as is reasonably practicable, that before the demolition work starts a procedure is developed that will explain how to minimise the risk of exposure of workers and persons in the vicinity of the demolition site and ensure the exposure standard is not exceeded, so far as is reasonably practicable. The person must also provide the regulator with written notice of the emergency immediately after they become aware of the emergency and before the demolition starts.

- **Refurbishment** – A person who is engaged to conduct refurbishment work at a house (which has become their workplace) must identify asbestos under their management or control that is likely to be disturbed by the refurbishment work. They must ensure, so far as is reasonably practicable, that the asbestos is removed.

5.4 ASBESTOS-RELATED WORK:

Regulation 478-484: 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.

Under the WHS Regulations, asbestos-related work includes:

- Genuine research and analysis.
- Sampling and identification in accordance with the WHS Regulations.
- Maintenance of, or service work on, non-friable asbestos or ACM, fixed or installed before 31 December 2003, in accordance with the WHS Regulations.
- The transport and disposal of asbestos and asbestos waste in accordance with jurisdictional legislation.
- Demonstrations, education or practical training in relation to asbestos or ACM.
- Display, or preparation or maintenance for display, of an artefact or thing that is, or includes, asbestos or ACM.
- Management in accordance with the WHS Regulations of in-situ asbestos that was installed or fixed before 31 December 2003.
- Work that disturbs asbestos during mining operations that involve the extraction of or exploration for a mineral other than asbestos.
- Laundering asbestos-contaminated clothing in accordance with the WHS Regulations.
- Where the regulator approves the method adopted for managing risks associated with asbestos.
- Soil that a competent person has determined:
    - does not contain any visible asbestos.
    - does not contain more than trace levels of asbestos determined in accordance with AS 4964:2004 Method for the qualitative identification of asbestos in bulk samples.
- NOA managed in accordance with an asbestos management plan.

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 *Health monitoring for exposure to hazardous chemicals – Guide for persons conducting a business or undertaking*.
- 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 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 practicable.
- If personal protective equipment used in asbestos-related work is to be removed from the work area for disposal, it also must 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.

Appendix E provides an example of asbestos-related work.

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, for example:

- Instead of drilling a hole through an asbestos-contaminated sheeting wall to install electrical wiring, the wiring might be able to be routed over the wall.
- If a ventilation flue or pipe has to be installed in an asbestos-contaminated ceiling or roof, an alternative option may be to run the flue or pipe through a non-asbestos wall.

It is also essential to ensure all people carrying out the work have the appropriate training (refer to Section 6.3 of this Code), correct tools (refer to Section 6.4 of this 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. For example:

- **Consultation and training** – Consultation with a person who may be affected by any maintenance and service work that might disturb asbestos should occur. People performing the work must receive all necessary training and access to the asbestos register, and the work should be documented and supervised.
- **Access to asbestos work area** – The asbestos work area should be isolated and access restricted to only those people carrying out the asbestos work. Barriers and warning signs should be used
- **PPE** – PPE needs to be selected to prevent the contamination of clothing and provide adequate respiratory protection.
- **Replacing asbestos** – Under the asbestos prohibition, wherever an asbestos component requires replacement the replacement product must be non-asbestos. It is illegal to reinstall or reuse any asbestos. Where an access hatch or panel that contains non-friable asbestos in good condition is moved in order to gain access, it may be replaced into its original position without modification.
- **Disposing of asbestos** – All asbestos must be disposed of correctly. Single-use PPE used during maintenance and service work must also be disposed of. The Code of Practice: *How to Safely Remove Asbestos* provides further information on disposing of asbestos.

Before commencing any asbestos-related work, plastic sheeting may need to be placed on the floor and any other surfaces that may become contaminated with asbestos dust. At a minimum, heavy-duty 200 µm (micron) thick plastic sheeting should be used for this purpose.

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, engineering control or a combination of these.
    - an example of isolation by barrier is applying a small amount of substance, such as silicon or paste, to the surface of an asbestos cement sheet where a hole will be drilled. When the drill bit is drilled through the paste into the sheet and is removed, any loose fibres are collected in the paste, preventing them from becoming airborne. After drilling, the paste can be wiped clean with a rag and disposed of as asbestos waste;
    - an example of isolation by distance is used in the automotive industry for the removal of asbestos-containing brake mechanisms from vehicles. A designated area in the workshop is isolated by distance from other work areas. Signs and barriers are used to communicate that access to the area is restricted during the activity. The activity also requires safe work procedures but the isolation control ensures that other workers are not at risk due to their distance from the activity. All workers must be provided with instruction and training so they understand the reason for the control measure and the relevant procedures; and
    - an example of engineering control is the use of a mini-enclosure to isolate the source of asbestos fibres combined with the use of extraction to capture and remove airborne fibres from the air in the work environment. This approach could be used for the task of removing and replacing the lock mechanisms from an asbestos-containing fire door. A purpose-built adjustable perspex box is fitted to the door surrounding the lock and handles on both sides of the door.

Adjustments can be made to ensure a secure fit to the door and tape used to seal any possible gaps between the enclosure and the door. The box has access points for the operator's arms to enable work to be done on the lock, as well as an entry point for a vacuum hose. The vacuum can create a negative pressure inside the enclosure to prevent fibres from escaping and can also be held directly at the source to capture any fibres that become airborne as the lock is removed from the door. At completion of the task, the vacuum is used to clean and decontaminate the enclosure as well as the operator's arms (before removing them).

- 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.

Administrative controls are systems of work or work procedures designed to eliminate or minimise risk. These controls are lower order controls that cannot be relied upon to be as effective as the higher order controls such as elimination, isolation and engineering. This is because administrative controls are systems or procedures that rely on human behaviour to be effective and can easily fail. Administrative control measures must be understood, implemented and maintained. This requires training, information and supervision for workers but the control measure can still fail if procedures are not followed or understood.

For some activities, administrative controls are the only practicable controls that can be implemented. An example of an administrative control for asbestos-related work is a procedure for collecting samples of ACM for the purpose of analysis. Collecting the samples may involve breaking or dislodging ACM, which can lead to the release of airborne asbestos fibres and consequently a risk to health.

A safe work procedure for this task would include actions such as:

- Isolating the area where the sample is to be collected.

- Assessing if the area is safe to enter.
- Minimising dust.
- Wearing suitable personal protective equipment.
- Sealing the samples, and storing and transporting them in a safe, secure manner.

For the administrative control measure to be effective and reduce risk, the person conducting the sampling must understand the risk and implement all of the procedure. If the procedure is not followed, the health of the person conducting the sampling and others in the workplace may be at risk.

Appendix F outlines examples of safe that are likely to disturb asbestos and control measures that eliminate or minimise exposure to airborne asbestos, when carrying out service and maintenance tasks.

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, including respirator, cartridge and coveralls.
- The issuing of PPE to each individual.
- Training and supervision – all employees who are required to conduct asbestos-related activities and wear PPE must be given adequate training and supervision to enable them to fit and use the equipment correctly and conduct the task in a safe manner.
- Maintenance of PPE – non-disposable respirators must be checked before and after use to ensure the components are in good working order and are not damaged.
- Employee compliance and support for the system – it is essential that employees use PPE when it is required. An understanding of the risk to health from asbestos, the higher order control measures already in place and the need to use PPE to further reduce the risk to health all contribute to employees' willingness to use PPE.

Disposable coveralls need to be of a suitable standard to prevent penetration of asbestos fibres, so far as is practicable. Disposable coveralls rated type 5, Category 3 (prEN ISO 13982-1) or the equivalent would meet this standard. Any clothing worn under coveralls must be disposed of or suitably bagged for laundering as asbestos-contaminated clothing.

5.5 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*, for example competency and licensing requirements.

Individual components and wiping rags must be placed in plastic bags, tying each bag separately prior to placing them in the container. Disposal bags need to be heavy duty (200 µm), made of clear plastic and marked with the label ***'Caution Asbestos – Do not open or damage bag.***

Do not inhale dust'. Asbestos waste awaiting disposal must be stored in closed containers (for example, 60 or 200 litre steel drums with removable lids or sealed skip).

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. MANAGING EXPOSURE TO ASBESTOS OR ACM:

6.1 MEASURING THE EXPOSURE STANDARD:

Airborne respirable fibre concentrations can be estimated using available data (for example, monitoring reports, data from scientific literature) or past experience (for example, monitoring reports) of the process in question. 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)].

Exposure monitoring measures the levels of respirable fibres in the breathing zone of the worker while work is being undertaken. Exposure monitoring must be carried out by a competent person, who may include a licensed asbestos assessor or a person who has undertaken the endorsed unit of competency for licensed asbestos assessors. An occupational hygienist who has experience in asbestos exposure monitoring may also be used.

Where exposure monitoring is carried out, it is good practice to stop work and investigate the cause if the level of airborne asbestos in the breathing zone reaches half the exposure standard.

Although the need for exposure air monitoring will depend on the particular circumstances, the results may assist in assessing risks associated with asbestos.

Other forms of air monitoring that are relevant to asbestos work are discussed in more detail in the Code of Practice: *How to Safely Remove Asbestos*. These include:

- Control monitoring for ensuring that an enclosure or other controls used during asbestos removal are effective at preventing fibres from being found outside the work area
- Clearance monitoring to ensure that the work area is free of asbestos fibres prior to being certified for reoccupation.

6.2 HEALTH MONITORING:

Regulation 435-444: A person conducting a business or undertaking 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 includes a medical examination to provide an initial baseline medical assessment. Health monitoring must include the following (unless another form of health monitoring is recommended by a registered medical practitioner):

- Consideration of the worker's demographic, medical and occupational history.
- Consideration of records of the worker's personal exposure.
- A physical examination of the worker with emphasis on the respiratory system, including standardised respiratory function tests unless another form of health monitoring is recommended by a registered medical practitioner.

Workers must be informed of any health monitoring requirements before the worker carries out work that may expose them to asbestos.

When should health monitoring occur?

Where a worker is at risk of exposure to asbestos due to work other than licensed asbestos removal, health monitoring must also be undertaken. Examples of work where there is a risk of exposure include ongoing unlicensed removal work, undertaking maintenance work on ACM regularly as part of another job (for instance, electricians or building maintenance staff in older buildings) and carrying out asbestos-related work. The need for health monitoring for these workers should be determined on the basis of:

- The potential for exposure.

- The frequency of potential exposure.
- The duration of the work being undertaken.

If a worker is carrying out licensed asbestos removal work, the health monitoring must be conducted prior to the worker commencing the work. Health monitoring should also be provided to the worker at regular intervals after commencing the asbestos-related work but at least once every two years.

Who can carry out health monitoring?

Health monitoring must be carried out under the supervision of a registered medical practitioner with the relevant competencies. Prior to deciding who the registered medical practitioner will be, the person conducting a business or undertaking must consult the worker.

Who pays for health monitoring?

The person conducting a business or undertaking must pay all expenses relating to health monitoring.

Where there are two or more persons that have a duty to provide health monitoring to a worker, they may choose that one person organises health monitoring (known as the person who commissions the health monitoring), however the costs must be shared equally between each person unless they agree otherwise.

What information must be provided to the register medical practitioner?

The person who commissions health monitoring must provide the following information to the registered medical practitioner:

- Their name and address.
- The name and date of birth of the worker.
- A description of the work the worker is, or will be, carrying out that has triggered the requirement for health monitoring.
- Whether the worker has started the work or, if the worker has commenced carrying out the work, how long this has been for.

Health monitoring report:

A person who commissions health monitoring must take all reasonable steps to obtain a report from the registered medical practitioner as soon as practicable after the monitoring is carried out.

The health monitoring report must include the following information:

- The name and date of birth of the worker.
- The name and registration number of the registered medical practitioner.
- The name and address of the person conducting the business or undertaking who commissioned the health monitoring.
- The date of the health monitoring.
- Any advice that test results indicate the worker may have contracted a disease, injury or illness as a result of carrying out the work that triggered the need for health monitoring.
- Any recommended remedial measures, including whether the worker can continue to carry out the work.
- Whether medical counselling is required for the worker.

That person must also give a copy of the report, as soon as reasonably possibly after obtaining it from the medical practitioner, to:

- The worker.
- The regulator, if the report contains:
    - any test results that indicate the worker may have contracted a disease, injury or illness as a result of the work that triggered the need for health monitoring; and
    - any recommended remedial measures, including whether the worker can continue to carry out the work
- All other persons conducting a business or undertaking who have a duty to provide health monitoring for that worker.

Reports must be kept as a confidential record 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.

6.3 TRAINING WORKERS ABOUT ASBESTOS OR ACM:

Regulation 39: A person conducting a business or undertaking must ensure that information, training and instruction provided to a worker is 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.

The person must, so far as is reasonably practicable, ensure the information, training and instruction is provided in a way that is readily understandable by any person to whom it is provided.

Regulation 445: A person conducting a business or undertaking 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.

This training may include the following topics:

- Purpose of the training.
- Health risks of asbestos.
- Types, uses and likely presence of asbestos in the workplace.
- Persons conducting a business or undertaking and the worker's roles and responsibilities under the asbestos management plan.
- Where the asbestos register is located, how it can be accessed and how to understand the information contained in it.
- Processes and safe work procedures to be followed to prevent exposure, including exposure from any accidental release of airborne asbestos.
- Where applicable, the correct use of PPE including respiratory protective equipment (RPE).
- The implementation of control measures and safe work methods to eliminate or minimise the risks associated with asbestos to limit the exposure to workers and other persons.
- Exposure standard and control levels for asbestos.
- Purpose of any exposure monitoring or health monitoring that may occur.

This training is more general than the training that a worker undertaking asbestos removal work would receive. Workers

who are undertaking licensed asbestos removal work are required to complete specific units of competency. Further information on these specific training requirements is available in the Code of Practice: How to Safely Remove Asbestos.

Records of all training must be kept while the worker is carrying out the work and for five years after the day the worker stops carrying out the work. These records must also be available for inspection by the regulator.

6.4 LIMITED USE OF EQUIPMENT:

Regulation 446: A person conducting a business or undertaking 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.

A combination of the controls mentioned above may be required to ensure that airborne asbestos is not generated.

Refer to Section 7.4 of this Code for further information on tools and equipment.

7. CONTROLLING THE RISKS:

As mentioned in Chapter 3 of this Code, 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.

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

- Eliminating the risk (for example, removing the asbestos).
- Substituting for the risk, isolating the risk or applying engineering controls (for example, 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.

7.1 REMOVING ASBESTOS:

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

- **Friable asbestos** – If asbestos is friable and it has been determined that it should be removed, it must be removed by a Class A licensed removalist as soon as reasonably practicable. Instances where removal should be of the highest priority would include friable asbestos that is in poor condition and is located in an area where it poses a significant risk of exposure.
- **Non-friable asbestos** – If asbestos is non-friable, is more than 10 m² and has been determined that it should be removed, it must be removed by a licensed asbestos removalist as soon as reasonably practicable. Where it is not reasonably practicable to remove it, control measures must be put in place to eliminate any exposure, so far as is reasonably practicable, or to minimise exposure so far as is reasonably practicable, but always ensuring the exposure standard is not exceeded.

Specific instances where removal may be the best control measure include:

- Asbestos lagging on pipes.
- Asbestos in plant.
- Asbestos-contaminated dust (ACD).
- Loose fibre insulation.
- Cracked or damaged fibreboard containing asbestos.

The Code of Practice: How to Safely Remove Asbestos provides detailed guidance on appropriate work methods and additional controls for the removal of asbestos.

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.

7.2 ENCLOSING ASBESTOS:

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

This may be determined during the risk assessment by reviewing a range of issues including productivity, the condition of the asbestos, the risk it poses to health and cost. This is an interim control measure and should be supported through regular inspections by a competent person to identify if the asbestos requires removal due to damage or deterioration.

What 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 creates a separate physical barrier that prevents access to the asbestos and therefore minimises the potential for exposure to airborne fibres. 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. Consideration must be given when designing the enclosure for the need to provide access to the asbestos for regular inspection of its condition.

Example of enclosure of asbestos as a control measure:

A large dockside warehouse used for temporarily storing quantities of grain and stockfeed has walls made from a variety of materials, including AC sheet. Apart from the driver of a large front-end loader that is briefly driven into the warehouse to load or unload the feed, there are no other workers who work in the warehouse. An inspection of the AC sheet identifies that it is in good condition and noted that areas of previous minor damage (broken sheets) have been repaired appropriately and there is minimal risk of fibre release. However, it is decided there is a chance the sheets may be damaged again and if so, a risk to health may occur if fibres are released. A solid false wall is constructed to enclose the AC sheet and bollards are erected in front of the new wall to prevent collisions that may occur when the front-end loader is operating inside the warehouse. These changes are included in the asbestos register. The condition of the AC sheet is also monitored as well as the newly installed control measure.

7.3 ENCAPSULATION AND SEALING ASBESTOS:

If the asbestos cannot be removed or enclosed, encapsulation or sealing is the next appropriate control measure. For example, if the asbestos is weathered, damaged or broken, it should be removed.

What is encapsulation?

Asbestos that is encapsulated in a resilient matrix, for example in reinforced plastics, vinyls, resins, mastics, bitumen, flexible plasters and cements have little opportunity to release airborne asbestos unless the matrix is damaged. This type of encapsulation will seal any loose fibres into place and should be used only when the original asbestos bond is still intact. 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.

Encapsulation helps protect the asbestos from mechanical damage, increases the length of serviceability of the product and may also be used to prevent the release of airborne asbestos during the removal process.

If encapsulation is recommended, the person carrying out the work should:

- Be trained and experienced in working with asbestos.
- Isolate the area.
- Use suitable RPE that complies with AS/NZS 1716:2003 Respiratory Protective Devices.
- Wear suitable protective clothing such as disposable overalls.
- Follow a safe system of work that reduces the risk of creating airborne asbestos.
- Follow a decontamination procedure upon completion of the task.

What is sealing?

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. The process either coats the material, reducing fibre release, or binds the fibres together. Asbestos should be sealed, coated or painted to protect it. Sealing is inappropriate where the sealed material is likely to suffer mechanical damage (for example, drilling or sanding).

It is important to select coating that is appropriate to the material to be sealed and has the required fire resistance, thermal insulation and ultraviolet (UV) properties necessary for it to be an effective control. The coating will deteriorate if it is exposed to chemicals, extreme heat or cold, wet or dry conditions or physical impacts. For example, epoxy-based paints offer better durability and strength than other paints.

Under no circumstances should asbestos be water blasted or dry sanded in preparation for painting, coating or sealing, as there is no system of use that can effectively capture or suppress asbestos fibres in such circumstances. To treat asbestos, a method should be used that does not disturb the asbestos.

An airless sprayer at low pressure is preferred to rollers or brushes on exposed (or unsealed) asbestos, as rollers and brushes may cause abrasion/damage and result in fibres being released from the surface of the material. When using a spray brush, never use a high-pressure spray to apply the paint. You should apply it with a dry airless spray using a low pressure to avoid generating high levels of asbestos dust. Several coatings may be needed for full protection.

The surface on which the sealant is to be applied should be cleaned with an asbestos vacuum cleaner fitted with a high efficiency particulate air (HEPA) filter. This will help capture any loose dust or debris from the surface and ensure good adhesion of the sealant. The surface during application should not be disturbed as this releases asbestos dust.

The use of sealants of a different colour to the asbestos being sprayed is helpful in identifying its condition over time and when conducting reviews of the asbestos register. A date-stamped photograph of the sealed surface is also a good way of assisting in the recording of condition.

Example of sealing asbestos as a control measure:

The extensive water pipe system in a large industrial workplace consists of AC piping and conduits. Some of the pipes are located underground, some within inaccessible areas such as walls, and others run aboveground throughout the workplace and are exposed. Connected to some of these pipes in the workplace are control valves that need to be accessed occasionally. Over time, as some of the AC pipes have deteriorated or been damaged, and where practicable to do so, sections of pipe have been removed to reduce the risk. Where a risk still remained, the pipes are enclosed so far as is reasonably practicable to reduce the risk further. Where control valves were connected and the AC pipe was in

good condition, it was determined that it was not practicable to remove the asbestos due to lack of available replacement parts, nor was it practicable to enclose the asbestos because access was occasionally required. In this case, sealing the surface of the AC pipes near control valves with an epoxy-based paint to protect the material from deterioration and reduce the risk of airborne asbestos fibres was an appropriate option.

7.4 TOOLS AND EQUIPMENT:

As mentioned in Section 6.4 of this Code, 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.

Battery-powered tools 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—including pastes and gels—are unsuitable, then shadow vacuuming techniques should be used.

Where power tools with dust suppression/extraction are used, exposure monitoring should be carried out to ensure the controls used are effective in reducing the generation of fibres. It is good practice to ensure that the levels of airborne fibres do not exceed one half of the exposure standard (0.1 fibres/ml). If more than half the exposure standard is exceeded, work should be stopped and improvements made to the controls being used.

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

Asbestos vacuum cleaners:

Asbestos vacuum cleaners should comply with the requirements in AS/NZS 60335.2.69:2003 Household and similar electrical: Particular requirements for wet and dry vacuum cleaners, including power brush, for industrial and commercial use (IEC 60335-2-69 Ed 3.2 MOD).

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

More comprehensive information about asbestos vacuum cleaners is provided in the Code of Practice: How to Safely Remove Asbestos.

7.5 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. Techniques that prevent or minimise the generation of airborne asbestos fibres include:

- The wetting of asbestos using surfactants or wetting agents, such as detergent water.
- The use of thickened substances, pastes and gels, including hair gel and shaving cream, to cover the surfaces of asbestos being worked on (these substances should be compatible with the conditions of use, including the temperature, and should not pose a risk to health).
- The use of shadow vacuuming.
- Performing the task in a controlled environment (for instance, a ventilated enclosure).

When selecting the best technique, 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.

If asbestos-related work or maintenance or service tasks are assessed by a competent person as involving similar levels of

risk, they too may be performed only after the risks for that task have been assessed and appropriate control measures implemented.

The use of high-speed abrasive power and pneumatic tools, including angle grinders, sanders and saws, and high-speed drills, is prohibited under the WHS Regulations, except where used with dust suppression/extraction controls. These controls include local exhaust ventilation (LEV) dust control hoods that attach to the tool and isolate the area being worked on (drilled, sanded etc.) from the environment, ensuring that the dust is captured.

Appendix F outlines examples of safe work practices of service and maintenance tasks that are likely to disturb asbestos and control measures that have been implemented to eliminate or minimise exposure to airborne asbestos.

7.6 PERSONAL PROTECTIVE EQUIPMENT:

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 (SDS) must be referred to for information on appropriate PPE to use and any other precautions to take when using the chemicals (the manufacturer or importer of a hazardous chemical must supply an SDS on request).

The ease of decontamination should be one of the factors considered when choosing PPE.

For PPE that is not clothing and cannot be disposed of, it must be decontaminated and kept in a sealed container until it is reused for the purposes of asbestos-related work.

Further information on decontamination and asbestos waste disposal is available in the Code of Practice: How to Safely Remove Asbestos.

Coveralls:

- Protective clothing should be made from material capable of providing adequate protection against fibre penetration.
- When selecting protective clothing, other hazards—including heat stress, fire and electrical hazards—should also be considered.
- Disposable coveralls with fitted hoods and cuffs should be worn. Coveralls with open pockets and/or velcro fastenings should not be used, because these features can be contaminated and are difficult to decontaminate. Fitted hoods should always be worn over the straps of respirators and loose cuffs should be sealed with tape. Disposable coveralls rated Type 5, Category 3 (prEN ISO 13982–1) or equivalent would meet this standard.
- Asbestos fibres must be prevented from being transported outside the workplace by thoroughly vacuuming asbestos fibres from work clothes using an asbestos vacuum cleaner or, depending on the level of contamination and risk, the use of a water spray bottle or damp cloths may be appropriate.
- Disposable coveralls need to be of a suitable standard to prevent penetration of asbestos fibres so far as is practicable. Disposable coveralls rated Type 5, Category 3 (prEN ISO 13982-1) or the equivalent would meet this standard.
- Non-disposable coveralls are not recommended and would require specialist laundering if used.
- Any clothing worn under coveralls must be disposed of or suitably bagged for laundering as asbestos-contaminated clothing.
- Footwear and gloves

- Laced boots should be avoided as they can be difficult to clean and asbestos dust can gather in the laces and eyelets. Laceless boots such as gumboots are preferred where practicable. If boot covers are worn, they should be of a type that has anti-slip soles to reduce the risk of slipping.
- Safety footwear must be decontaminated before being removed from the asbestos work area or sealed in double bags, the exterior of which is decontaminated, for use only on the next asbestos maintenance task. Alternatively, work boots that cannot be effectively decontaminated should be disposed of as asbestos waste at the end of the work.
- The use of protective gloves should be determined by a risk assessment. If significant amounts of asbestos fibres may be present, disposable gloves should be worn. Protective gloves can be unsuitable if dexterity is required. Personal decontamination including hand and fingernail washing should be carried out each time workers leave the asbestos work area and at the completion of asbestos maintenance and service work. Any gloves used must be disposed of as asbestos waste.

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).
- A competent person should determine the most efficient respirator for the task.
- RPE should comply with AS/NZS 1716-2003 Respiratory Protective Devices and be selected, used and maintained in accordance with AS/NZS 1715-1994 Selection, Use and Maintenance of Respiratory Protective Devices. They must always be worn under fitted hoods. Face pieces should be cleaned and disinfected.
- RPE should be used until all contaminated disposable coveralls and clothing has been vacuum cleaned and/or removed and bagged for disposal and personal washing has been completed. RPE should be properly stored when not in use.
- More comprehensive advice on RPE is provided in the Code of Practice: How to Safely Remove Asbestos.

7.7 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.

The laundering facility that is equipped to launder asbestos-contaminated clothing:

- Should be informed of the asbestos contamination.
- Should have a management plan in place to control the release of respirable fibres.
- Should be constructed of smooth surfaces that are able to be lined with polythene sheeting or easily wiped clean.
- May use conventional washing machines provided they are not used for other clothing.
- May need to have a laundry room that is under negative pressure to eliminate or minimise the release of airborne asbestos fibres during the laundering process. This can be determined during the risk assessment.
- Should have procedures established for cleaning up spills and for the prevention of flooding of neighbouring areas.

The contaminated clothing should:

- Be removed damp and thoroughly wet, then placed in impermeable containers or bags the outside of which are decontaminated and labelled to indicate the presence of asbestos before being sent to the commercial laundering facility
- Not be allowed to dry out before washing.

At the laundry facility:

- The containers and bags holding the asbestos contaminated clothing should be opened in the washing machine while being further saturated. As a minimum, P1 respiratory protection must be worn while unloading clothes into the washing machine
- The empty containers or bags should be disposed of as asbestos waste. Waste water must be filtered and the filtering medium disposed of as asbestos waste.

7.8 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.

APPENDIX A – SAMPLING PROCESS

A competent person should take the following steps to carry out sampling:

Step 1 – Preparation:

- Make sure no one else is in the vicinity when sampling is done.
- Shut down any heating or cooling systems to minimize the spread of any released fibres.
- Turn off any fans if you're inside. If outside, then sample on a non-windy day.
- Do not disturb the material any more than is needed to take a small sample.
- Collect the equipment you will need for sampling, including:
    - pliers, resealable plastic bags, disposable coveralls, waterproof sealant, plastic drop sheet, water spray bottle; and
    - P2 respirator, rubber gloves.

Step 2 – Taking the sample:

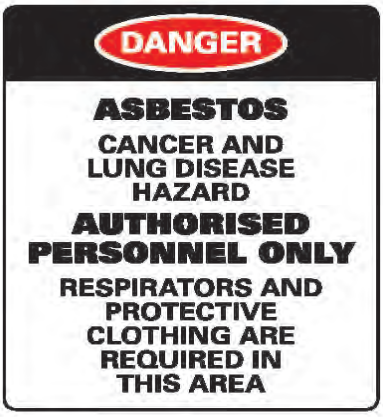
- Wear disposable gloves.
- Put on respiratory protective equipment (RPE).
- Wear a pair of disposable coveralls.
- Lay down a plastic drop sheet to catch any loose material that may fall off while sampling.
- Wet the material using a fine mist of water containing a few drops of detergent before taking the sample. The water/detergent mist will reduce the release of asbestos fibres.
- Carefully cut a thumb nail piece from the entire depth of the material using the pliers.
- For fibre cement sheeting, take the sample from a corner edge or along an existing hole or crack.
- Place the small piece into the resealable plastic bag.
- Double bag the sample, include the **date and location** and an **asbestos caution warning.**
- Tightly seal the container after the sample is in it.
- Carefully dispose of the plastic sheet.
- Use a damp paper towel or rag to clean up any material on the outside of the container or around the area sampled.
- Dispose of asbestos materials according to state or territory and local procedures.
- Patch the sampled area with the smallest possible piece of duct tape to prevent fibre release.
- Send the sample to a NATA-accredited laboratory or one that is either approved or operated by the relevant regulator.

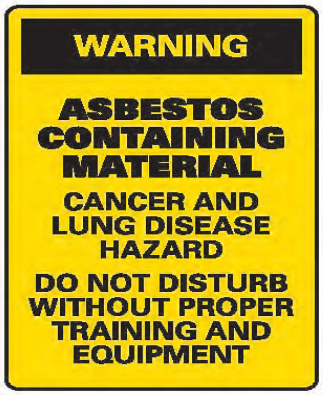
Step 3 – Cleaning up:

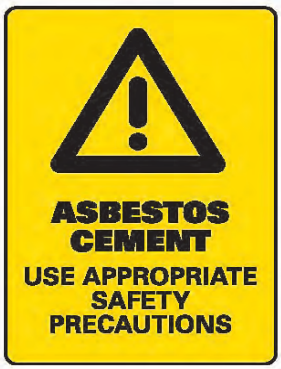
- Seal the edges with waterproof sealant where the sample was taken.
- Carefully wrap up the plastic drop sheet with tape and then put this into another plastic rubbish bag.
- Wipe down the tools and equipment with a dampened rag.
- Place disposable gloves and coveralls into a rubbish bag, along with the damp rag and drop sheet.

- Seal plastic bag.
- Wash hands.
- Keep RPE on until clean-up is completed.
- Follow a decontamination procedure (personal washing) upon completion of the task.

APPENDIX B – EXAMPLES OF WARNING SIGNS AND LABELS:







APPENDIX C – 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?**

APPENDIX D – EXAMPLE OF AN ASBESTOS REGISTER:

ASBESTOS REGISTER					
Workplace address: XYZ Manufacturing 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**	**Is this an inaccessible area?**
1/2/2011	AC Roof Sheeting	Non-friable	Good, minor deterioration on Western End	Whole Roof to main building	Not routinely accessed
1/2/2011	Fibro Wall Cladding	Non-friable	Sound condition structurally, paint lifting in some places	Exterior of main Building	Accessible. Unlikely to be damaged.
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

APPENDIX E – EXAMPLE OF ASBESTOS-RELATED WORK :

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.

APPENDIX F – 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.

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 µm plastic sheeting. • A suitable asbestos waste container (e.g. 200 µm plastic bags or a drum, bin or skip lined with 200 µm 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.

SAFE WORK PRACTICE 1 – DRILLING OF ACM	
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	• 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.
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.

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.	
	• 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 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.

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.

SAFE WORK PRACTICE 2 – SEALING, PAINTING, COATING AND CLEANING OF ASBESTOS-CEMENT PRODUCTS	
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	• 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.

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.

Decontaminating 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 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.

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 µm 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.

SAFE WORK PRACTICE 4 – REPLACE CABLING IN ASBESTOS CEMENT CONDUITS OR BOXES	
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.

SAFE WORK PRACTICE 4 – REPLACE CABLING IN ASBESTOS CEMENT CONDUITS OR BOXES	
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.

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 µm 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. • 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	• 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.

SAFE WORK PRACTICE 5 – WORKING ON ELECTRICAL MOUNTING BOARDS CONTAINING ASBESTOS	
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mounting panels	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.

SAFE WORK 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.

SAFE WORK 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.	
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. **Wet method:** • 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. **Dry method:** • 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.
Decontaminating 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 decontamination 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.

SAFE WORK 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.	
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.

LIST OF AMENDMENTS

Date	Page Number	Amendments
3 February 2016	Front Cover	Republication date of February 2016 added to the front cover.
3 February 2016	10	Duty holder table, last dot point – Formatting of table amended so the words 'reduce the risk of the exposure to asbestos to below the exposure standard and notify the regulator about the emergency' are now showing in the table.
3 February 2016	29	Section 5.4, 14th dot point – 'Further information can be found in Health Monitoring for Exposure to Hazardous Chemicals - Guide for persons conducting a business or undertaking' has been added to the dot point.
3 February 2016	61	Safe Work Practice 5, 8th dot point – Text amended from '200 mm' to '200 µm'.

#Asbestos2

HOW TO SAFELY REMOVE ASBESTOS

Code of Practice - APRIL 2016

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FORWARD:

It is important to read the Code of Practice: How to Manage and Control Asbestos in the Workplace, as it provides specific guidance on identifying asbestos or ACM in the workplace, determining whether removal is the best control option and implementing other control measures if removing asbestos is not the most appropriate action to take.

Some chapters of this Code will apply to asbestos that is present in domestic premises where the premises becomes a workplace.

SCOPE AND APPLICATION:

This Code provides practical guidance for persons conducting a business or undertaking who have duties under the WHS Act and WHS Regulations to safely remove asbestos from all workplaces including structures, plant and equipment.

A person conducting a business or undertaking may be an asbestos removalist who may carry out asbestos removal work that does not require a licence, Class A asbestos removal work or Class B asbestos removal work. This could include both asbestos removal companies and those persons who may carry out small asbestos removal jobs and may not have an asbestos licence, for example tradespersons.

It is recommended that other persons with responsibility—for example, a person conducting a business or undertaking who commissions asbestos removal work at a workplace (person who commissions removal work)—should read this Code to ensure they are aware of mandatory requirements.

This Code may also be used by workers and their health and safety representatives and other persons affected by asbestos removal work, for example neighbours.

It is important to read the Code of Practice: *How to Manage and Control Asbestos in the Workplace*, as it provides specific guidance on identifying asbestos or ACM in the workplace, determining whether removal is the best control option and implementing other control measures if removing asbestos is not the most appropriate action to take.

Some chapters of this Code will apply to asbestos that is present in domestic premises where the premises becomes a workplace.

How to use this Code of Practice:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to provisions of the WHS Act and Regulations to provide context with legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that these legal requirements exist and must be complied with.

1. INTRODUCTION:

1.1 WHO HAS HEALTH AND SAFETY DUTIES WHEN REMOVING ASBESTOS?

The WHS Act requires all persons who conduct a business or undertaking to ensure, so far as is reasonably practicable, that workers and other persons are not put at risk from work carried out as part of the business or undertaking.

The person conducting a business or undertaking must also ensure so far as is reasonably practicable that 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.

The WHS Regulations include specific obligations for a number of duty holders in relation to safely removing asbestos. These duties are summarised in Chapters 2 and 3 of this Code.

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and WHS Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks associated with asbestos.

Workers have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. They must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace. If PPE is provided by the person conducting the business or undertaking, the worker must use it in accordance with information, instruction and training provided on their use.

Consultation:

There are a number of specific duties in both the WHS Act and WHS Regulations that require consultation with others throughout the asbestos removal process. Communicating and consulting with a range of people helps to increase the awareness of the potential health and safety risks of asbestos.

An asbestos removalist must consult with persons that may be affected by the asbestos removal work, as well as other responsible persons at the workplace, to eliminate or minimise the exposure to the risks associated with asbestos, for example site management or the project manager, workers, health and safety representatives, contractors, building occupants and others. This also includes speaking with neighbours and other businesses where the asbestos removal work is occurring at domestic premises.

Further guidance on consultation is available in the:

Code of Practice: Work Health and Safety Consultation, Cooperation and Coordination.

1.2 THE MEANING OF KEY TERMS:

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

Asbestos means the asbestiform varieties of mineral silicates belonging to the serpentine 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 or a mixture of any of these.

Asbestos containing material (ACM) means any material or thing that, as part of its design, contains asbestos.

Asbestos-contaminated dust or debris (ACD) means dust or debris that has settled within a workplace and is (or is assumed to be) contaminated with asbestos.

Asbestos-related work means 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 means a person conducting a business or undertaking who carries out asbestos removal work.

Asbestos removal work means:

- 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 in relation to carrying out clearance inspections under Regulation 473 means a person who has acquired through training or experience the knowledge and skills of relevant asbestos removal industry practice and holds a certification in relation to the specified VET course for asbestos assessor work or a tertiary qualification in occupational health and safety, occupational hygiene, science, building, construction or environmental health. For all other purposes, competent person means a person who has acquired through training, qualification or experience, the knowledge and skills to carry out the task.

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 period of four hours in accordance with:

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

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

GHS means Globally Harmonised System of Classification and Labelling of Chemicals.

Licensed asbestos assessor means a person who holds an asbestos assessor licence.

Licensed asbestos removalist means a person conducting a business or undertaking who is licensed under the WHS Regulations to carry out Class A or Class B asbestos removal work.

Naturally occurring asbestos (NOA) means the natural geological occurrence of asbestos minerals found in association with geological deposits including rock, sediment or soil.

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

Respirable asbestos means an asbestos fibre that:

- Is less than 3 micron metres (µm) wide.
- More than 5 micron metres (µm) long.
- Has a length to width ratio of more than 3:1.

1.3 LICENCE REQUIREMENTS FOR ASBESTOS REMOVAL WORK:

R. 458 A person conducting a business or undertaking who commissions the removal of asbestos at the workplace must ensure asbestos removal work is carried out only by a licensed asbestos removalist who is appropriately licensed to carry out the work, unless specified in the WHS Regulations that a licence is not required.

There are two types of licences: Class A and Class B. The type of licence required will depend on the type and quantity of asbestos or ACM that is being removed at a workplace.

Type of licence	What asbestos can be removed?
Class A	Can remove any amount or quantity of asbestos or ACM, including: • any amount of friable asbestos or ACM. • any amount of ACD. • any amount of non-friable asbestos or ACM.
Class B	Can remove: • any amount of non-friable asbestos or ACM. Note: A Class B licence is required for removal of more than 10 m^2 of non-friable asbestos or ACM but the licence holder can also remove up to 10 m^2 of non-friable asbestos or ACM. • ACD associated with the removal of non-friable asbestos or ACM. Note: A Class B licence is required for removal of ACD associated with the removal of more than 10 m^2 of non-friable asbestos or ACM but the licence holder can also remove ACD associated with removal of up to 10m^2 of non-friable asbestos or ACM.
No licence required	Can remove: • up to 10 m^2 of non-friable asbestos or ACM • ACD that is: o associated with the removal of less than 10 m^2 of non-friable asbestos or ACM o not associated with the removal of friable or non-friable asbestos and is only a minor contamination.

Examples where a licence is not required to perform asbestos removal work:

- A single asbestos cement sheet must be removed to install an air conditioner. The sheet is 2 m^2 in total. This job may be performed by a company that is not a licensed asbestos removalist, observing the requirements outlined in Chapter 2.
- Self-employed person is required to remove an asbestos cement eave to enable access for pipes. The asbestos cement eave is 1.6 m^2 in total. This job may be performed by the self-employed person who is not a licensed asbestos removalist, observing the requirements outlined in Chapter 2.

Examples of Class A or B licensed asbestos removal work:

- A person is engaged to remove asbestos cement sheets from a factory toilet block. The material to be removed is non-friable asbestos. The area to be removed is 12 m^2 in total so the person must be a licensed asbestos removalist and the material to be removed is non-friable so the work can be done by a Class A or Class B licensed asbestos removalist.
- A company is required to remove 0.5 m^3 (cubic metres) of asbestos lagging from a pipe in order to carry out maintenance work. This involves the removal of friable asbestos. A Class A licensed asbestos removalist is required to do this work.

Licensed asbestos assessor:

The WHS Regulations require that a person must hold an asbestos assessor licence to conduct the following:

- Air monitoring for Class A asbestos removal work.
- Clearance inspections for Class A asbestos removal work.
- Issuing clearance certificates in relation to Class A asbestos removal work.

A licensed assessor can also carry out a number of other tasks including identifying asbestos, carrying out a risk assessment or reviewing an asbestos register.

1.4 HEALTH MONITORING DUTIES:

R. 435-444 A person conducting a business or undertaking to 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 is at risk of exposure to asbestos when carrying out the work.

Health monitoring includes a medical examination to provide an initial baseline medical assessment.

Health monitoring must include the following (unless another form of health monitoring is recommended by a registered medical practitioner):

- Consideration of the worker's demographic, medical and occupational history.
- Consideration of records of the worker's personal exposure.
- A physical examination of the worker with emphasis on the respiratory system, including standardised respiratory function tests, unless another form of health monitoring is recommended by a registered medical practitioner.

Workers must be informed of any health monitoring requirements before the worker carries out work that may expose them to asbestos.

When should health monitoring occur?

Where a worker is at risk of exposure to asbestos due to work other than licensed asbestos removal, health monitoring must also be undertaken. Examples of work where there is a risk of exposure include ongoing unlicensed removal work, undertaking maintenance work on ACM regularly as part of another job (for instance, electricians or building maintenance

staff in older buildings) and carrying out asbestos-related work. The need for health monitoring for these workers should be determined on the basis of:

- The potential for exposure.
- The frequency of potential exposure.
- The duration of the work being undertaken.

If a worker is carrying out licensed asbestos removal work, the health monitoring must be conducted prior to the worker commencing the work. Health monitoring should also be provided to the worker at regular intervals after commencing the asbestos-related work but at least once every two years.

Who can carry out health monitoring?

Health monitoring must be carried out under the supervision of a registered medical practitioner with the relevant competencies. Prior to deciding who the registered medical practitioner will be, the person conducting a business or undertaking must consult the worker.

Who pays for health monitoring?

The person conducting a business or undertaking must pay all expenses relating to health monitoring.

Where there are two or more persons that have a duty to provide health monitoring to a worker, they may choose that one person organises health monitoring (known as the person who commissions the health monitoring), however the costs must be shared equally between each person unless they agree otherwise.

What information must be provided to the register medical practitioner?

The person who commissions health monitoring must provide the following information to the registered medical practitioner:

- Their name and address.
- The name and date of birth of the worker.
- A description of the work the worker is, or will be, carrying out that has triggered the requirement for health monitoring.
- Whether the worker has started the work or, if the worker has commenced carrying out the work, how long this has been for.

Health monitoring report:

A person who commissions health monitoring must take all reasonable steps to obtain a report from the registered medical practitioner as soon as practicable after the monitoring is carried out.

The health monitoring report must include the following information:

- The name and date of birth of the worker.
- The name and registration number of the registered medical practitioner.
- The name and address of the person conducting the business or undertaking who commissioned the health monitoring.
- The date of the health monitoring.
- Any advice that test results indicate the worker may have contracted a disease, injury or illness as a result of carrying out the work that triggered the need for health monitoring.
- Any recommended remedial measures, including whether the worker can continue to carry out the work.

- Whether medical counselling is required for the worker.

That person must also give a copy of the report, as soon as reasonably possibly after obtaining it from the medical practitioner, to:

- The worker.
- The regulator, if the report contains:
    - any test results that indicate the worker may have contracted a disease, injury or illness as a result of the work that triggered the need for health monitoring
    - any recommended remedial measures, including whether the worker can continue to carry out the work
- All other persons conducting a business or undertaking who have a duty to provide health monitoring for that worker.

Reports must be kept as a confidential record 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.

2. DUTIES FOR REMOVAL WORK THAT DOES NOT REQUIRE A LICENCE:

Removal of asbestos by a person who does not hold a Class A or Class B asbestos removal licence is permitted if the asbestos being removed is:

- 10 m² or less of non-friable asbestos (approximately the size of a small bathroom).
- ACD that is not more than a minor contamination and is associated with the removal of 10 m² or less of non-friable asbestos.

Friable asbestos materials must not be removed by a person who does not have a Class A asbestos licence.

A worker carrying out asbestos removal work, including a self-employed person conducting a business or undertaking, must be trained in the identification and safe handling of asbestos prior to carrying out asbestos removal work without a licence. An asbestos awareness course or the non-friable removal unit of competency would be considered appropriate training.

This allows a person (for example, a plumber) to remove small amounts of non-friable asbestos and replace it with non-asbestos alternatives if they come across it during renovations, refurbishments, or service and maintenance work. However, this person must still use safe working methods to ensure the work is not creating a risk to the health and safety of persons at the workplace.

The WHS Regulations require a person who is carrying out asbestos removal work without a licence to comply with the duties outlined in Chapter 4 of this Code and also with some of the duties in Chapter 3 of this Code. These duties are summarised below:

- Obtain a copy of the asbestos register for a workplace unless the work is being carried out at a domestic premises (refer to Section 3.4).
- Identity hazards at the workplace (refer to Section 4.1).
- Ensure signs and barricades are erected to indicate and delineate the asbestos work area (refer to Sections 3.7 and 4.2).
- Use the wet method to removal asbestos where reasonably practicable (refer to Section 4.3).
- Ensure the correct tools, equipment and PPE is used (refer to Sections 4.4 and 4.5).
- Ensure decontamination facilities are available (refer to Sections 3.8 and 4.6).

- Contain and label asbestos waste and dispose of it as soon as reasonably practicable (refer to Sections 3.9 and 4.8).
- Ensure that PPE and clothing used in asbestos removal work and contaminated with asbestos is handled in accordance with the WHS Regulations (refer to Sections 3.9, 4.5 and 4.6).

Although it is not mandatory for the person to prepare an asbestos removal control plan for this type of asbestos removal work, it may be beneficial to do so to ensure the work is being carried out safely. Refer to Section 3.5 for further information on an asbestos removal control plan.

It is also not mandatory to conduct air monitoring however, an independent licensed asbestos assessor or competent person can carry out it out in these situations. Refer to Section 3.11 for further information on air monitoring.

2.1 TRAINING WORKERS ABOUT ASBESTOS OR ACM:

R. 39 A person conducting a business or undertaking must ensure that information, training and instruction provided to a worker is 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, and
- the control measures implemented.

The person must, so far as is reasonably practicable, ensure that the information, training and instruction is provided in a way that is readily understandable by any person to whom it is provided.

R. 445 A person conducting a business or undertaking 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.

This training may include the following topics:

- Purpose of the training.
- Health risks of asbestos.
- Types, uses and likely presence of asbestos in the workplace.
- Persons conducting a business or undertaking and the worker's roles and responsibilities under the asbestos management plan.
- Where the asbestos register is located, how it can be accessed and how to understand the information contained in it.
- Processes and safe work procedures to be followed to prevent exposure, including exposure from any accidental release of airborne asbestos.
- Where applicable, the correct use of PPE including respiratory protective equipment (RPE).
- The implementation of control measures and safe work methods to eliminate or minimise the risks associated with asbestos to limit the exposure to workers and other persons.
- Exposure standard and control levels for asbestos.
- Purpose of any exposure monitoring or health monitoring that may occur.

This training is more general than the training that a worker undertaking licensed asbestos removal work would receive. Workers who are undertaking licensed asbestos removal work are required to complete specific units of competency. Refer to Section 3.2 for further information.

Records of all training must be kept while the worker is carrying out the work and for five years after the day the worker

stops carrying out the work. These records must also be available for inspection by the regulator.

3. 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. The duties are explained further below.

3.1 ASBESTOS REMOVALIST SUPERVISOR TO BE PRESENT OR READILY AVAILABLE:

When licensed asbestos removal work is being carried out at a workplace, an asbestos removal supervisor must oversee the work. The licensed asbestos supervisor must have a certification appropriate to the type of licensed asbestos removal work.

If the asbestos removal work requires a Class A licence, for example removing friable asbestos, the asbestos removal supervisor must be present at the asbestos removal area whenever the work is being carried out.

However, if the asbestos removal work requires a Class B licence, for example non-friable asbestos that is more than 10 m^2, then the asbestos removal supervisor must be readily available to a worker who is carrying out the work whenever it is being carried out. For example, if the supervisor is contactable by phone and able to arrive at the workplace within 20 minutes, this would be regarded as accessible.

Where the asbestos removal work requires a Class B licence and it is being carried out by a self-employed person working alone, for example a plumber removing more than 10 m^2 of AC sheeting, the person must hold the competency of a worker for non-friable asbestos removal and the competency of a supervisor for non-friable asbestos removal.

3.2 CERTIFICATION AND TRAINING:

Certification:

A licensed asbestos removalist must not direct or allow a worker to carry out licensed asbestos removal work unless they are satisfied the worker holds a certification that is relevant to the class of licensed asbestos removal work they will be carrying out.

Workers (including the asbestos removal supervisors) who are carrying out licensed asbestos removal work are required to acquire a certification by completing units of competencies to show they have the relevant training to be able to remove asbestos. The units of competency completed by the person will determine what type of asbestos work they can carry out. Asbestos removal supervisors will have additional units of competency to complete.

Registered training organisations conduct training and education for the specific unit of competency for both Class A and Class B asbestos removal work as well as the asbestos removal supervisor certification. The Class B removal unit of competency must be completed before the Class A removal unit of competency.

Training:

A licensed asbestos removalist must provide appropriate training to a worker carrying out licensed asbestos removal work at the workplace to ensure the work is carried out in accordance with the asbestos removal control plan for the workplace.

This is additional training to the general training that is provided on the identification and safe handling of asbestos and the appropriate controls referred to in Section 6.3 of the Code of Practice: *How to Manage and Control Asbestos in the Workplace*.

A worker who is carrying out licensed asbestos removal work must receive training that is designed specifically for the workplace where the work is being or is to be carried out. This should occur before the commencement of each asbestos removal job. The training should include:

- The nature of the hazards and risks.
- How asbestos can affect a person's health.
- The risk from exposure to airborne asbestos.
- The control measures in place and maintenance of the asbestos removal control plan for that job.
- The methods and equipment that will be used to do the job properly.
- Choosing, using and caring for PPE and RPE.
- Decontamination procedures.
- Waste disposal procedures.
- Emergency procedures.
- Any other legal requirements (for example, contaminated sites).

If the worker is required to hold other licences for the particular task, for example a demolition licence, additional training may be provided to cover this type of work.

The licensed asbestos removalist must keep a record of all training undertaken by a worker who is carrying out licensed asbestos removal work:

- while the worker is carrying out licensed asbestos removal work.
- For five years after the day the worker stopped carrying out licensed asbestos removal work for the removalist.

The training record must be readily accessible at the asbestos removal area and available for inspection under the WHS Act.

3.3 INFORMING PARTIES OF THE LICENSED ASBESTOS REMOVAL:

Prior to any licensed asbestos removal work being carried out at a workplace, the licensed asbestos removalist must inform the person with management or control of the workplace about the work and the date it is to commence.

The person with management or control of the workplace must then ensure the following persons are told that the asbestos removal work is to be carried out and when the work is to commence:

- The person's workers and any other persons at the workplace.
- The person who commissioned the asbestos removal work.
- Anyone conducting a business or undertaking at or in the vicinity of the workplace.
- Anyone occupying premises in the immediate vicinity of the workplace.

If the workplace is a domestic premises, the licensed asbestos removalist must, so far as is reasonably practicable, before commencing the licensed asbestos removal work tell the following people about the asbestos removal work and when it will commence:

- The person who commissioned the asbestos removal work.
- A person conducting a business or undertaking at the workplace.
- The occupier of the domestic premises.
- The owner of the domestic premises.
- Anyone occupying premises in the immediate vicinity of the workplace.

Providing information to persons that may carry out licensed asbestos work:

A licensed asbestos removalist must provide the following information to a person who is likely to be engaged to carry out the work:

- The health risks and health effects associated with exposure to asbestos.
- The need for and details of health monitoring of a worker carrying out licensed asbestos removal work. Section 1.4 of this Code provides more specific details on health monitoring.

3.4 OBTAINING THE ASBESTOS REGISTER:

Before commencing the licensed asbestos removal work, the licensed asbestos removalist must obtain a copy of the asbestos register for the workplace from the person with management or control of the workplace.

This provision does not apply if the work is being carried out at a domestic premise.

3.5 PREPARING AN ASBESTOS REMOVAL CONTROL PLAN:

A licensed asbestos removalist must prepare an asbestos removal control plan for any licensed asbestos removal work they are commissioned to undertake.

What is the purpose of an asbestos removal control plan?

An asbestos removal control plan is a document that identifies the specific control measures a licence holder will use to ensure workers and other persons are not at risk when asbestos removal work is being conducted. It is similar to a job safety analysis (JSA) but is focused on the specific control measures necessary to minimise any risk from exposure to asbestos.

An asbestos removal control plan helps ensure the asbestos removal is well planned and carried out in a safe manner.

An asbestos removal control plan is only required to be prepared for licensed asbestos removal work. However, one can be prepared to assist when planning asbestos removal work that does not require a licence.

The licensed asbestos removalist must also take into account any asbestos register relevant to the asbestos to be removed and the area to be worked on. The structure of the asbestos removal control plan may be generic but each plan must address the specific situation requirements for each job.

When is an asbestos control removal plan required to be prepared?

The asbestos removal control plan must be prepared before the licensed asbestos removal work commences.

What is contained in an asbestos removal control plan?

The asbestos removal control plan must include details of:

- How the asbestos removal will be carried out, including the method, tools, equipment and PPE to be used.
- The asbestos to be removed, including the location, type and condition of the asbestos.

Specifications or drawings that are relevant to the asbestos removal can also be attached to the asbestos removal control plan to provide additional information about the asbestos. Appendix A provides further detail of what can be in a comprehensive asbestos removal control plan.

Preparing the asbestos removal control plan:

When preparing the asbestos removal control plan, the licensed asbestos removalist should consult with the person who commissioned the work, the person with management or control of the workplace (if not the same person), workers and their health and safety representatives.

For the same reasons, if licensed asbestos removal work is being carried out at domestic premises, the licensed asbestos removalist should consult with the person who commissioned the removal work, the owner or the occupier (if not the same person).

Access to the asbestos removal control plan:

Once the asbestos removal control plan is prepared, a copy must be:

- Given to the person who commissioned the licensed asbestos removal work
- Readily accessible on-site for the duration of the licensed asbestos removal work to:
    - A person conducting a business or undertaking at the workplace.
    - Workers and their health and safety representatives.
    - The occupants of the premises (if domestic premises).

The asbestos removal control plan must also be made available for inspection under the WHS Act.

3.6 Notifying the regulator of the licensed asbestos removal work:

A licensed asbestos removalist must notify the regulator in writing at least five days before the licensed asbestos removal work commences.

The following information must be included in the notification:

- Name, registered business name, Australian Business Number, licence number and business contact details of the licensed asbestos removalist.
- Name and business contact details of the supervisor who will oversee the removal work.
- Name of the licensed assessor or competent person engaged to undertake air monitoring and to issue the clearance certificate.

- Client name and contact details.
- Name, including registered business or corporate name, of the person with management or control of the workplace.
- Address of the workplace, including the specific location if it is a large workplace.
- Kind of workplace where the removal work will be performed (for example, whether it is an office building or construction site and the type of work that is carried out there, if any).
- Date of notification.
- The start date of the removal work and an estimation of how long it will take.
- Whether the asbestos to be removed is friable or non-friable.
- The type of the asbestos (for example, asbestos-contaminated sheeting, vinyl tiles, lagging, gaskets).
- If the asbestos is friable, the way the removal area will be enclosed.
- Estimated quantity of asbestos to be removed.
- Number of workers who will perform the removal work and details of their competency to carry out removal work.

It may not be possible to provide five days notice, and removal work may commence immediately in the following limited circumstances:

- A sudden expected event that may lead to a situation where there is a risk of exposure, for example a burst pipe that was lagged with asbestos or a forklift crashing into an asbestos cement sheet wall.
- An unexpected breakdown of an essential service that requires immediate rectification, for example gas, water, sewerage or telecommunications services.

If this is the case, the licensed asbestos removalist must notify the regulator immediately by telephone and in writing within 24 hours after the notice provided over the telephone.

3.7 LIMITING ACCESS, DISPLAYING SIGNS AND INSTALLING BARRICADES:

A person who is carrying out licensed asbestos removal work must ensure that signs indicate where the asbestos removal work is being carried out and barricades are erected to delineate the asbestos area. This will assist in limiting access to the asbestos removal work area.

If the person who commissions the licensed asbestos removal work and the person with management or control of the workplace (if not the same person) is aware that licensed asbestos removal work is being carried out, they must ensure that access to the removal area is limited to the following people:

- Workers who are engaged to carry out the removal work.
- Other people who are associated with the removal work.
- People who are allowed under the WHS Regulations or another law to be in the asbestos removal area (for example, inspector, emergency service workers).

A combination of using signs and barricades may be necessary to limit access to the asbestos removal area, for example installing a fence and signs may be used as a method to inform people that it is the asbestos removal area. Using locking access doors may be appropriate as long it does not create an evacuation hazard.

All people who have access to the removal area should comply with any direction given by the licensed asbestos removalist.

Section 4.2 of this Code provides further detail on the type of signs and barricades that should be used at a workplace.

3.8 DECONTAMINATION:

When carrying out licensed asbestos removal work, the licensed asbestos removalist must ensure decontamination facilities are available for the asbestos removal work area, any plant used in that area and workers carrying out the asbestos removal work.

Section 4.6 of this Code outlines decontamination procedures that can be put in place at the workplace.

3.9 WASTE CONTAINMENT AND DISPOSAL:

When carrying out licensed asbestos removal work, the licensed asbestos removalist must ensure that asbestos waste is contained and labelled in accordance with the GHS before the waste is removed from the asbestos removal area. It must be disposed of as soon as is practicable at a site authorised to accept asbestos waste.

PPE

Disposable PPE that has been used in the asbestos work area and is contaminated with asbestos must be sealed and labelled in a container and disposed of upon completion of the asbestos removal work.

In some cases, it may not be reasonably practicable to dispose of PPE that is clothing. In this case, the clothing must be laundered at a laundry that is equipped to launder asbestos-contaminated clothing. If this cannot be done, the clothing must be sealed in a container until is reused for asbestos removal purposes.

It may also not be reasonably practicable to dispose of PPE that is not clothing. If this is the case, the clothing must be decontaminated prior to it being removed from the asbestos removal area. If this cannot be done, the PPE must be sealed in a container until it is reused for asbestos removal purposes.

Where a sealed container has been used, it must be decontaminated and labelled in accordance with the GHS prior to it being removed from the asbestos removal area to indicate that it contains asbestos.

Section 4.5 of this Code provides guidance on the type of PPE that can be used. Section 4.8 of this Code outlines waste containment and disposal procedures that can be implemented at the workplace.

3.10 CLEARANCE INSPECTION:

A person commissioning licensed asbestos removal work must ensure that, once the licensed asbestos removal work has been completed, a clearance inspection is carried out and a clearance certificate is issued before the workplace can be re-occupied by:

- An independent licensed asbestos assessor, for work that must be carried out by a Class A licensed asbestos removalist (for example, if the removal work involved friable asbestos)
- An independent competent person, for asbestos work that is not required to be carried out by a Class A licensed asbestos removalist (for example, if removal work involved more than 10 m² of non-friable asbestos).

This also includes where the work is being carried out at domestic premises.

To be independent, the licensed asbestos assessor or competent person must not be involved in the removal of asbestos for that specific job and is not involved in a business or undertaking involved in the removal of the asbestos for that specific job.

In some cases, it may not be reasonably practicable for the licensed asbestos assessor or competent person to be independent from the person who carried out the asbestos removal work. If this is the case, the person commissioning the work can apply to the regulator for an exemption from this requirement under Part 11.2 of the WHS Regulations.

The independent licensed assessor or competent person must not issue a clearance certificate unless they are satisfied that the asbestos removal area and the area immediately surrounding it are free from visible asbestos contamination. To do this, they can conduct a visual inspection for evidence of dust and debris. If air monitoring was also conducted, the results of that test must show that asbestos is below 0.01 fibres/ml.

If a clearance certificate has not been obtained, the asbestos removal area must not be re-occupied for normal use or other work activities. A clearance certificate must be issued before the area can be re-occupied for demolition or other work.

Unauthorised persons cannot enter the asbestos removal work area prior to a clearance certificate being issued and any protective barricades should remain in place until the completion of all licensed asbestos removal work and the final clearance certificate is issued.

Appendix C provides an example of a clearance certificate.

3.11 AIR MONITORING:

Air monitoring involves sampling airborne asbestos fibres to assist in assessing exposure to asbestos and the effectiveness of implemented control measures. It must be conducted in accordance with the Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Dust, 2nd Edition [NOHSC: 3003 (2005)].

When is air monitoring required?

Air monitoring requirements will vary depending on the type of asbestos being removed, the location and position of the asbestos, if an enclosure is used and whether the asbestos removal work is within a building or outside.

- **Friable asbestos removal** – Air monitoring is mandatory for all friable asbestos removal. This includes prior to dismantling an enclosure and for the purposes of the clearance inspection.
- **More than 10 m² of non-friable asbestos removal** – Air monitoring is not required but may be considered to be carried out by an independent licensed asbestos assessor or competent person to ensure compliance with the duty to eliminate or minimise exposure to airborne asbestos and to ensure the exposure standard is not exceeded.
- **Public Location** – Air monitoring should be considered where the asbestos removal work is being undertaken in or next to a public location.
- **Exposure air monitoring** – Air monitoring should be carried out at other times to determine a worker's exposure to airborne asbestos if, based on reasonable grounds, there is uncertainty as to whether the exposure standard may be exceeded and a risk assessment by a competent person indicates it is necessary. Since most uses of asbestos are prohibited, exposure monitoring should not be required frequently.

Air monitoring may be required when:

- It is not clear whether new or existing control measures are effective.
- There is evidence (for example, dust deposits are outside the enclosure) the control measures have deteriorated as a result of poor maintenance.
- Modifications or changes in safe work methods have occurred that may adversely affect worker exposure
- There has been an uncontrolled disturbance of asbestos at the workplace.

When must the air monitoring be carried out?

The air monitoring must be conducted before and during Class A asbestos removal work. However, it is not required before friable asbestos removal work commences when the glove bag removal technique is used. Air monitoring must be carried out as part of the clearance inspection, for instance at the conclusion of the asbestos removal work.

Who must conduct air monitoring?

A person who commissions asbestos removal work that requires a Class A licence must ensure that an independent licensed asbestos assessor undertakes air monitoring of the asbestos removal area at the workplace.

In relation to asbestos removal work requiring a licence:

- **Friable asbestos removal** – An independent licensed asbestos assessor must be engaged to carry out air monitoring when it is required.
- **Non-friable asbestos removal (more than 10 m²)** – An independent licensed asbestos assessor or competent person must be engaged to carry out air monitoring when it is required.

Where air monitoring is otherwise required, for instance to determine whether the exposure standard has been exceeded following an uncontrolled disturbance or release of asbestos at the workplace, an independent licensed asbestos assessor or competent person may carry it out. However, if the release involves friable asbestos, only an independent licensed asbestos assessor can carry out the air monitoring.

Results of the air monitoring

Once the results of the air monitoring are received, the licensed asbestos removalist must take action depending on the respirable fibre level. Where the results show that respirable asbestos fibre levels exceed the action levels outlined in Table 1, action must be taken immediately.

Table 1 Air monitoring action levels

Action level	Control	Action
Less than 0.01 fibres/ml	No new control measures are necessary	Continue with control measures
At 0.01 fibres/ml or more than 0.01 fibres/ml but less than or equal to 0.02 fibres/ml	1. Review	Review control measures
	2. Investigate	Investigate the cause
	3. Implement	Implement controls to eliminate or minimise exposure and prevent further release
More than 0.02 fibres/ml	1. Stop removal work	Stop removal work
	2. Notify regulator	Notify the relevant regulator by phone followed by fax or written statement that work has ceased and the results of the air monitoring
	3. Investigate the cause	Conduct a thorough visual inspection of the enclosure (if used) and associated equipment in consultation with all workers involved with the removal work

Action level	Control	Action
	4. Implement controls to eliminate or minimise exposure and prevent further release	Extend the isolated/barricaded area around the removal area/enclosure as far as reasonably practicable (until fibre levels are at or below 0.01 fibres/ml, wet wipe and vacuum the surrounding area, seal any identified leaks (e.g. with expandable foam or tape) and smoke test the enclosure until it is satisfactorily sealed.
	5. Do not recommence removal work until further air monitoring is conducted	• Do not recommence until fibre levels are at or below 0.01 fibres/ml

Any information that is gathered from these actions can be referred to during future asbestos removal jobs (where applicable).

Communicating the results of the air monitoring

The person who commissions the licensed asbestos removal work must ensure the results of the air monitoring are given to the following persons:

- Workers at the workplace.
- Health and safety representatives for the workplace.
- Persons conducting businesses or undertakings at the workplace.
- Other persons at the workplace.

If the workplace is domestic premises, the licensed asbestos removalist must ensure the results are given to the following persons:

- The person who commissioned the work.
- Workers at the workplace.
- Health and safety representatives for the workplace.
- Persons conducting businesses or undertakings at the workplace.
- The occupier of the domestic premises.
- The owner of the domestic premises.
- Other persons at the workplace.

3.12 REMOVING FRIABLE ASBESTOS:

When a licensed asbestos removalist is removing friable asbestos (requiring a Class A licence), the following must occur, so far as is reasonably practicable:

- The asbestos removal area is enclosed to prevent the release of respirable asbestos fibres.
- Negative pressure is used, provided the enclosure being used has been tested for leaks.
- The wet method of asbestos removal is used.
- The asbestos removal work area does not commence until the air monitoring is started by an independent licensed asbestos assessor, provided the enclosure has been tested for leaks.

- Air monitoring is undertaken during the asbestos removal work at times decided by the independent licensed assessor undertaking the monitoring.
- Any glove bag used to enclose the asbestos removal area is dismantled and disposed of safely.

However, if the glove bag method is used, negative pressure and conducting air monitoring prior to the work commencing are not required.

The enclosure must not be dismantled until the results are received from:

- If the friable asbestos is removed from a domestic premises – the licensed asbestos assessor who undertook the air monitoring
- In any other case – the person who commissioned the Class A asbestos removal work.

The results must show that the respirable asbestos fibre level is below 0.01 fibres/ml.

The enclosure must be decontaminated prior to dismantling it to minimise, so far as is reasonably practicable, the release of respirable asbestos fibres. The person who commissions the removal of the friable asbestos must obtain a clearance certificate from the licensed asbestos assessor after the enclosure has been dismantled.

Chapter 6 provides further detail on enclosures. Section 4.3 provides further detail on the wet method. Section 7.2 provides further detail on the glove bag method.

4. CONTROLS APPLICABLE TO ALL TYPES OF ASBESTOS REMOVAL:

Note: This chapter applies to all asbestos removal work i.e. Class A and Class B licensed asbestos removal work and asbestos removal work that does not require a licence.

4.1 IDENTIFYING HAZARDS:

An asbestos removalist should consider not only the direct hazards that are associated with the asbestos removal work but also those hazards related to the work activity and the work environment (for example, demolition or construction).

Confined spaces

Removing asbestos in a confined space should only be undertaken where it is not possible to avoid doing work in that space. A safe system of work should be developed for inclusion in the asbestos management plan or asbestos removal control plan.

Friable asbestos removal requires the use of enclosures that are designed to eliminate or minimise the release of airborne asbestos spreading from the asbestos removal work area. Depending on the conditions inside the enclosure, an asbestos enclosure may also become a confined space.

Further information is available in the Code of Practice: *Confined Spaces*.

Falls:

Work at heights should not be undertaken if the task can be performed on the ground. If asbestos removal work must be undertaken at height, then the WHS Regulations apply. Further information is available in the Code of Practice: How to Prevent Falls at Workplaces.

Heat stress:

Heat-related hazards can be created from working in enclosures or confined spaces or using PPE. The factors that can lead to heat stress should be considered, including temperature, humidity, air movement, exposure to a heat source, work activities and demands, how long the PPE must be worn and individual physical factors.

Control measures include:

- Selection of appropriate PPE fitted to reduce the build-up of heat.

- Adequate number of extraction units in enclosures.
- Cool cotton underclothing.
- Scheduling appropriate work breaks.
- Job rotation.
- Cool drinks readily available.
- Providing a cool, shaded rest area.
- Educating workers about heat stress risks and controls.

Further information is available in the Code of Practice: Managing the Work Environment and Facilities.

Electrical equipment

When undertaking asbestos removal work, the risk associated with electrical equipment should be controlled by following the procedures set out below.

- De-energisation and removal from the asbestos removal work area. If the electrical equipment cannot be disconnected and removed they must be de-energised. The de-energised equipment must be secured so it cannot be inadvertently re-energised.
- Any electrical cabling or equipment remaining in the asbestos removal area must be labelled and protected from mechanical damage or the ingress of water in accordance with AS/NZ3000:2000 Wiring rules.
- A licensed electrician must safely remove and reinstall electrical cables and equipment.
- For electrical equipment such as fire detectors, smoke detectors and thermal detectors, only a person able to remove and isolate the circuits and heads as required prior to the asbestos removal work should be engaged to do that.
- Upon completion of the asbestos removal work, a person should replace, reactivate and test the system, prepare a certificate stating that the heads are operational and forward to the asbestos removalist.

All portable electrical tools and equipment, including flexible leads and any electrical installations utilised by workers during asbestos removal, should comply with *AS/NZS 3012:2003 Electrical installations – construction and demolition sites*.

Further information is available in the Code of Practice: Managing Risks with Electrical Work.

4.2 INDICATING THE ASBESTOS REMOVAL AREAS:

The asbestos removalist must use signs and barricades to clearly indicate the area where the asbestos removal work is being performed. Signs must be placed in positions so that people are aware of where the asbestos removal work area is and should remain in place until removal is completed and clearance to reoccupy has been granted. Responsibilities for the security and safety of the asbestos removal site and removal work area should be specified in the asbestos removal control plan (where required). This includes inaccessible areas that are likely to contain asbestos.

Warning signs:

Warning signs must be placed so they inform all people nearby that asbestos removal work is taking place in the area. Signs should be placed at all of the main entry points to the asbestos removal work area where asbestos is present.

These signs should be weatherproof, constructed of light-weight material and adequately secured so they remain in prominent locations. The signs should be in accordance with AS 1319-1994 Safety signs for the occupational environment for size, illumination, location and maintenance.

Barricades:

The use of barricades assists with traffic control and prevents access to the asbestos removal site and removal work area.

The purpose of barricades is to delineate and isolate the asbestos removal area with appropriately placed barricades. Barricades can take various forms, from tape to solid hoarding. The type of barricading should reflect the level of risk. For friable asbestos removal work, solid barricades should be used. Tape may be appropriate for non-friable asbestos removal work of short duration.

The location of barricades will depend on the physical environment and the level of risk. An assessment of the asbestos removal work site should determine the appropriate placement of barricades.

For example, a non-friable asbestos cement removal job where the asbestos cement is in good condition may use a wall located three metres from the asbestos removal area as the barrier. A friable sprayed asbestos removal job being performed dry due to electrical restrictions may require a barricade 15 metres from the asbestos removal area.

In determining the distance between barriers and the asbestos removal area, the following should be considered:

- Whether the asbestos is friable or non-friable.
- Activity around the asbestos removal area (for example, other workers, visitors, neighbours, the public) to determine the risk of exposure to other people.
- The method of asbestos removal.
- Any existing barriers (walls, doors).
- The quantity of asbestos to be removed.
- The type of barrier used (for example, hoarding or tape).

4.3 WET AND DRY METHODS:

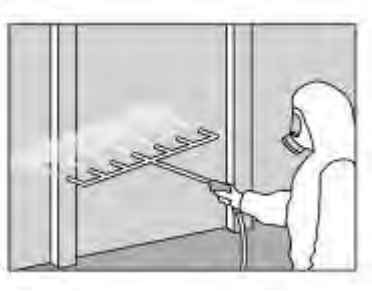
An asbestos removalist must use techniques to eliminate or minimise the generation of asbestos fibres so far as is reasonably practicable. They must choose the method of asbestos removal that is most effective at minimising fibre release at the source. The removal methods are listed in preferred order:

- **Wet spray method** - asbestos fibres are significantly suppressed; however, they are not entirely eliminated so the use of RPE is as essential.
- **Saturation and water injection method** – used during friable removal.
- **Dry method** - can only be used if the wet spray method is not suitable, for example if there are live electrical conductors or if equipment could be permanently damaged or made dangerous by contact with water.

Wet spray method:

The wet spray method is the preferred asbestos removal method and should be used for the removal of asbestos from structures and plant. The wet spray method requires the use of a constant low-pressure water supply for wetting down asbestos and related items to suppress asbestos fibres. This can be achieved with a mains-supplied garden hose fitted with a pistol grip.
If no water supply is readily available, a portable pressurised vessel (for example, a pump-up garden sprayer) may be used.

The design of the spraying equipment will depend on the availability of a water supply and access to the area to be sprayed.



The wet spray method involves applying a fine water spray to the asbestos in a manner that ensures the entire surface of the asbestos is saturated and the run-off is minimised. The asbestos should be maintained in a wet condition throughout the removal.

A wetting agent (surfactant), for example detergent, may be added to the water to facilitate more rapid wetting of the asbestos.
A manually controlled, consistent low-pressure, fine spray (for example, from an adjustable pistol-grip garden hose) is recommended.

For very small areas, a small spray water bottle may be sufficient. In all cases, the use of water should be in the form of a mist to minimise the potential to generate respirable dust.

The asbestos should be wetted through to its full depth and the water spray should be directed at the site of the cut. The wetted material should be removed as the cut is progressed.

Immediately after the asbestos is removed from its fixed or installed position, spray should be directed on sides previously not exposed.

The wet friable asbestos removed in sections should immediately be placed in suitably labelled asbestos waste containers and properly sealed along with any small sections dislodged as the asbestos is cut.

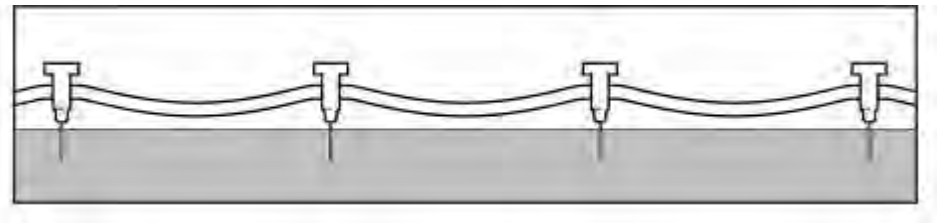
Wherever reasonably practicable, a HEPA-fitted vacuum cleaner should be used in conjunction with the wet spray method. The HEPA vacuum cleaner should be used prior to spraying asbestos with water and for the collection of any dust spread over a large area.

Airborne asbestos fibres are significantly suppressed when the wet spray method is used; however, they are not entirely eliminated so effective PPE including RPE is also essential. Refer to Section 4.5 of this Code for information on RPE.

Consideration should be given to applying a PVA emulsion as it may be more effective than water (with a wetting agent) in minimising fibre release. For example, PVA can be applied and allowed to dry on AC roofing prior to its removal as an alternative method to prevent slip hazards.

Saturation and water injection method:

The soaking method with total saturation should be used if the asbestos is so thick that the spray method will not suppress the asbestos significantly. This method involves injecting water or a water-based solution directly into friable asbestos. It is a process that requires specific training in relation to the use of the equipment and the process.



The asbestos is soaked by the introduction of water or other wetting agents through an appropriate applicator that consists of an injection head with numerous side holes or outlets through which the water or wetting agent is fed to the

asbestos.

To facilitate more rapid wetting of the asbestos, holes or cuts should be made in the outer covering to enable the water or wetting agent to be injected in such a manner as to ensure that the asbestos is saturated but not just washed out through a liquid passage.

The soaking should be done before removal. The quantity of water or wetting agent and the time to soak will depend on the thickness of the asbestos, access to the asbestos and location of the holes.

The saturated asbestos should then be removed in sections, placed in a properly labelled container, sealed and disposed of as with the spray method.

Dry method:

The dry method is not preferred as there is a much greater potential for airborne asbestos fibres to be generated. The dry removal method can only be used if the wet spray or soaking methods are not suitable, for example if there are live electrical conductors or if major electrical equipment could be permanently damaged or made dangerous by contact with water.

If the dry removal method is used, the following controls should be implemented:

- **Non-friable removal** – Enclose the asbestos removal work area as far as is reasonably practicable.
- **Friable removal** – Fully enclose the asbestos removal work area with plastic sheeting (a minimum 200 µm thick) and maintain at a negative pressure (at least 12 Pa water gauge). Ensure all workers involved in the removal operation wear full-face positive-pressure supplied air-line respirators.
- **Friable and non-friable removal** – The asbestos should be removed in small, pre-cut sections with minimal disturbance to minimise the generation of airborne asbestos fibres as much as possible. Wherever reasonably practicable, a HEPA-fitted vacuum cleaner should be used.
- All waste material should be immediately placed in appropriate wet containers which are wetting to suppress creation of dust and airborne fibres.

4.4 TOOLS AND EQUIPMENT:

Tools and equipment that can be used during asbestos removal work include asbestos vacuum cleaners, manually operated hand tools and equipment—other than compressed air or high pressure water spray—that have been designed to capture or suppress respirable dust or are used in a way that is designed to capture or suppress respirable dust.

In addition to any equipment required to complete a particular task, the following equipment may be required on-site before the work begins:

- Disposable cleaning rags.
- Bucket of water and/or a misting spray bottle.
- Sealant.
- Suitable asbestos waste container.
- Warning signs and/or barrier tape.

Prohibited tools and equipment:

Tools and equipment that generate dust must not be used on asbestos. These include:

- High-speed abrasive power and pneumatic tools, for example angle grinders, sanders, saws and high-speed drills
- Brooms and brushes (unless brushes are used for sealing)

- High-pressure water spray, jets, power or similar tools and instruments on asbestos in the workplace
- Compressed air.

The use of tools and equipment that cause the release of asbestos, including power tools and brooms, may be used on asbestos if the equipment is enclosed and/or designed to capture or suppress asbestos fibres and/or the equipment is used in a way that is designed to capture or suppress asbestos fibres safely, for example:

- Enclosing the tool or instrument.
- Engineering controls such as extraction ventilation.
- Using the tools and instruments within an enclosed removal area (for example, full enclosure or small enclosure).

Controls are assumed to be effective if exposure monitoring results are less than 0.05 f/ml or control monitoring results are less than 0.01 f/ml. Should either of these values be exceeded during monitoring, work must cease and the control measures that are in place reviewed or improved to ensure the levels of airborne asbestos do not exceed these levels.

Inspection and maintenance of equipment:

After the asbestos removal work is completed, tools must be decontaminated (refer to Section 4.6).

All equipment used for the removal of asbestos should be inspected before the commencement of the asbestos removal work, after any repairs and at least once every seven days when it is continually being used. A register with the details of these inspections, the state of the equipment and any repair details should be maintained.

Asbestos vacuum cleaners:

Asbestos vacuum cleaners should comply with the Class H requirements in Australian Standard *A*S/NZS 60335.2.69 Industrial vacuum cleaners or its equivalent. Asbestos vacuum cleaners should not be used on wet materials or surfaces. Attachments with brushes should not be used as they are difficult to decontaminate.

Filters for these vacuum cleaners should conform to the requirements of AS 4260-1997 High efficiency particulate air (HEPA) filters – Classification, construction and performance or its equivalent.

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

Asbestos vacuum cleaners can only be used for collecting small pieces of asbestos dust and debris. Larger pieces should be picked up and placed in suitable waste containers and should never be broken into smaller sizes for vacuuming.

The asbestos removalist should ensure that procedures are established for the general maintenance, including emptying, of asbestos vacuum cleaners in a controlled environment.

They should be cleaned externally with a wet cloth after each task, the hose and attachments should be stored in a labelled impervious bag, and a cap should be placed over the opening to the asbestos vacuum cleaner when the attachments are removed.

PPE should be worn whenever an asbestos vacuum cleaner is opened to change the bag or filter or to perform other maintenance.

The emptying of asbestos vacuum cleaners can be hazardous if the correct procedures are not followed. Asbestos vacuum cleaners should only be emptied by a competent person with the correct PPE, in a controlled environment and in compliance with the manufacturer's instructions.

Whenever possible, asbestos vacuum cleaners should not be hired, as they can be difficult to fully decontaminate.

Hiring may be more viable in some instances if they are completely decontaminated, such as when a one-off maintenance task is required for asbestos. Asbestos vacuum cleaners should be hired only from organisations that provide vacuum cleaners specifically for work involving asbestos and the asbestos vacuum cleaner has been previously decontaminated.

If hired, the asbestos vacuum cleaner should be decontaminated before it is returned.

Alternatively, the hire organisation may undertake the decontamination and maintenance of the filters and bags of the asbestos vacuum cleaner itself. In these cases, the asbestos vacuum cleaner should be hired out in a sealed storage container, with instructions that it may be removed from the container only when it is inside the asbestos removal work area and users are wearing appropriate PPE. When the minor maintenance work is completed the asbestos vacuum cleaner should be resealed in the storage container provided, and the sealed storage container should then be decontaminated by wet wiping before it is removed from the asbestos removal work area and returned to the hire organisation for decontamination and maintenance.

Organisations that hire out asbestos vacuum cleaners should ensure all their asbestos vacuum cleaners are decontaminated, maintained in good working order and the hirers are competent in their safe use. It is suggested that asbestos vacuum cleaners are only hired out to asbestos removal supervisors or licence holders.

At the completion of the asbestos removal work, the tools and equipment must be decontaminated, placed in sealed, labelled containers and if necessary, disposed of as asbestos waste. The asbestos vacuum cleaner and attachments must also be decontaminated. The bag and filter must be removed in accordance with the manufacturer's instructions and disposed of as asbestos waste.

Spray equipment:

Spray equipment includes wet sprays with water mist or wetting solution. A constant low-pressure water supply is required for wetting down asbestos and related items to suppress airborne asbestos fibres.

Wet spray can be achieved with a mains-supplied garden hose fitted with a pistol grip. If no water supply is readily available, a portable pressurised vessel (such as a pump-up garden sprayer) may be used. For very small areas, a small spray water bottle may be sufficient. In all cases, the use of water should be in the form of a mist to minimise the potential to generate airborne dust.

4.5 Personal protective equipment:

An asbestos removalist must provide all workers with PPE that is suitable for asbestos removal work. Workers must also use the PPE given to them by the asbestos removalists. PPE must be worn at all times during the work in the asbestos removal area. PPE includes clothing, for example coveralls, gloves and safety footwear, as well as RPE. The appropriate PPE can be determined by conducting a risk assessment.

Personal protective clothing should be made from materials that provide protection against fibre penetration and not from wool or other materials that attract fibrous dusts.

All equipment used for the removal of asbestos should be inspected before the commencement of the asbestos removal work, after any repairs and at least once every seven days when it is continually being used. A register with the details of these inspections, the state of the equipment and any repair details should be maintained.

At the end of the asbestos removal work and upon leaving the asbestos removal work area, all PPE must be disposed of as asbestos waste or decontaminated and stored in sealed double bags before being removed from the asbestos removal site to be laundered by a laundry with facilities for laundering asbestos-contaminated materials. PPE should be thoroughly wet before being placed in bags.

Coveralls:

Disposable coveralls should be provided wherever reasonably practicable and should be:

- Of a suitable standard to prevent tearing or penetration of asbestos fibres so far as is practicable. Disposable coveralls rated Type 5, Category 3 (prEN ISO 13982–1) or equivalent would meet this standard
- One size too big, as this will help prevent ripping at the seams

- Fitted with hood and cuffs, ensuring that:
    - if cuffs are loose, they are sealed with tape;
    - coverall legs are worn over footwear as tucking them in lets the dust in; and
    - the fitted hood is worn over the respirator straps.

Coveralls should:

- Not be made of material that is easily torn or have external pockets or velcro fastenings because these are easily contaminated and difficult to decontaminate
- Never be taken home
- Never be reused
- Be disposed of as asbestos waste after a single use.

If it is not reasonably practicable to provide coveralls that can be disposed of after a single use, the coveralls may be laundered at a commercial laundry equipped to launder asbestos-contaminated clothing by prior arrangement. The coveralls must be sealed in a decontaminated container before they are removed from the asbestos removal work area. However, laundering of asbestos-contaminated protective clothing is not recommended because decontamination cannot be guaranteed. It is recommended that such re-usable coveralls should only be used in limited instances, for example in emergency services where the coveralls must be inflammable to protect against fire hazards and continual disposal and replacement is not practicable. Refer to Section 4.8 for more information on laundering of contaminated clothing.

In some cases (particularly dusty jobs) double coveralls should be used, with the outer coverall being removed a predetermined distance from the final decontamination area. Disposable coveralls should be wrapped in a double layer of plastic before disposal as asbestos-contaminated waste after the removal task is completed.

Gloves:

If significant quantities of asbestos fibres may be present, single-use disposable gloves should be worn. If latex gloves must be used, low protein (powder free) gloves should be used. If latex gloves are not available, disposable nitrile gloves can be used as an alternative.

Gloves used for asbestos removal work should be disposed of as asbestos waste and the workers should clean their hands and fingernails thoroughly whenever leaving the asbestos removal work area. However, as with coveralls, if it is not reasonably practicable to use disposable gloves, they may be laundered appropriately in limited circumstances.

Footwear:

Safety footwear (for example, steel-capped, rubber-soled work shoes or gumboots) should be provided for all workers removing asbestos. Footwear should be laceless, as laces and eyelets can be contaminated and are difficult to clean. It should remain inside the barricaded area or dirty decontamination area for the duration of the asbestos removal work and should not be shared for hygiene reasons. Disposable overshoes should be avoided unless they are of a design that has an anti-slip sole.

When safety footwear is not in use, it should be stored upside down to minimise asbestos contamination inside the footwear. Storage facilities should be provided to allow for storage of the shoes. At the end of the removal work and each time the worker leaves the asbestos removal work area, safety footwear must be:

- Decontaminated.
- Sealed in double bags for use on the next asbestos removal site (but not for any other type. of work)
- Disposed as asbestos waste.

Respiratory protective equipment (RPE)

All workers engaged in asbestos removal work must wear RPE conforming to the requirements of AS/NZS 1716:2012 Respiratory Protection Devices or its equivalent.

The level of respiratory protection and supplied air respirators should be determined by a competent person. The selection of suitable RPE depends on the nature of the asbestos removal work, the probable maximum concentrations of asbestos fibres expected and any personal characteristics of the wearer that may affect the facial fit of the respirator (for example, facial hair and glasses).

Disposable RPE is not preferred, however if selected, it should be stored in a suitable and clean location before use and disposed of after a single use.

A competent person may change the level of RPE at any stage during the asbestos removal job following an assessment of the asbestos fibre levels experienced inside the asbestos removal work area. For example, this may occur during the final clean-up after the removal of friable asbestos when the use of air-lines is no longer considered necessary.

If a medical condition precludes the use of negative pressure respirators, workers should be provided with a continuous-flow, positive pressure respirator wherever possible.

At every asbestos removal job, the workers should be reinstructed in the necessity to wear RPE correctly to guard against complacency.

A fit test should be performed to ensure the RPE fits the individual and provides a good face seal between the worker's skin and the face piece. Fit tests should be repeated when changing from different models of RPE or a different sized face piece.

Appendix B provides more information on selecting suitable RPE and fit tests.

Using and maintaining RPE:

RPE must be worn at all times in the asbestos removal area and until the appropriate stage of personal decontamination.

Asbestos removalists or asbestos removal supervisors must ensure all workers undertaking any asbestos removal work receive instruction and training in:

- Fit testing/checking.
- The importance of a correct facial fit.
- The correct method of using their respirators.
- The procedures for regular cleaning, inspection and maintenance of respirators before use.
- When to stop asbestos removal work and leave the area if they think their RPE is not working properly.

The respirator must be worn in accordance with the manufacturer's instructions and the coverall hood must go over the respirator straps. It should be examined in accordance with the manufacturer's instructions before use to ensure that it is not damaged and is in good working order. Respirator defects should be reported immediately to the asbestos removal supervisor.

The pre-use examination should include an inspection of:

- The condition of the straps and face piece, including the seal and the nose piece.
- The condition of the exhalation valve.
- A fit check.

Non-disposable respirators should be cleaned, disinfected and stored in a safe place away from the asbestos-

contaminated removal area.

The length of time a particulate filter can be used for the asbestos removal work depends on the resistance to breathing and damage to the filter. The filter should be replaced if damaged or when resistance increases. A damaged filter must be replaced before resistance begins to increase. The replacement should be according to the manufacturer's instructions.

Certain brands of filters may not be usable after being exposed to certain conditions such as a full decontamination shower. Specific advice should be sought from the supplier regarding the effectiveness of a filter after being subjected to certain conditions.

All parts, including filters, valves and seals, should be inspected before and after each use. Respirator defects should be reported immediately to the supervisor for repair or replacement.

A system of regular cleaning, inspection and maintenance of non-disposable respirators should be in place to ensure they are clean and in a safe working condition.

Records of all respirator issues, uses and maintenance should be kept up-to-date.

At the end of a shift or at a break, as part of the decontamination process, ensure the respirator is taken off last.

Air-line respirators:

Air-line respirators are used when the asbestos being removed is friable. When in use, the air-line should incorporate a belt-mounted back-up filter. If a failure of the air supply system occurs, workers should leave the asbestos removal work area using normal decontamination procedures; the use of a back-up belt-mounted filter device allows for adequate respiratory protection during this process.

If the number of workers wearing air-line respirators inside an enclosure is likely to result in the tangling of air lines, manifolds should be provided to minimise this tangling and assist workers in moving around the enclosure.

The capacity of the compressor should be adequate for the number of air-lines, and the location of the compressor's air intake should be assessed to ensure appropriate air quality and avoid contamination. Air from a compressor must be filtered before supply to a respirator.

4.6 Decontamination:

Decontamination for the work area, workers, PPE and tools used in asbestos removal work is an important process in eliminating or minimising exposure to airborne asbestos fibres, particularly to persons outside the asbestos removal work area.

To determine the appropriate decontamination procedure, the risks of each individual asbestos removal job should be assessed.

Decontamination of the removal work area:

There are two types of decontamination processes:

- **Wet decontamination,** or wet wiping, involves the use of damp rags to wipe down contaminated areas. Rags should only be used once, although they may be refolded to expose a clean surface. The rags should be used flat and should not be wadded. If a bucket of water is used, the rags should not be re-wetted in the bucket as this will contaminate the water. If the water is contaminated, it must be treated as asbestos waste. Care should be taken to avoid any potential electrical hazards when using this procedure.
- **Dry decontamination**, involves carefully rolling or folding up and sealing plastic sheeting and/or vacuuming the asbestos removal area with an asbestos vacuum cleaner. Dry decontamination should only be used where the wet method is not suitable or poses a risk because of other hazards such as electricity or slipping.

Contaminated items, tools, equipment and clothing must not be removed from the removal work area unless they have been decontaminated or contained.

If an item is not able to be decontaminated, or is not suitable for decontamination, it should be placed in a sealed container and disposed of in accordance with the WHS Regulations. The sealed container must be decontaminated before it is removed from the asbestos removal work area.

If asbestos removal work involves friable asbestos, the decontamination procedures must include decontamination units. Glove bag and wrap and cut methods are exceptions where personal decontamination procedures are likely to be satisfactory and units are not necessary. Mini-enclosure removals may require a combination of personal decontamination and decontamination units.

Decontamination of tools:

All tools used during asbestos removal work should be fully dismantled (where appropriate), cleaned under controlled conditions and decontaminated using either the wet or dry decontamination procedures described above before they are removed from the removal work area. The method chosen will depend on its practicality, the level of contamination and the presence of any electrical hazards.

If tools cannot be decontaminated in the asbestos removal work area, or are to be reused at another asbestos removal work area, they should be:

- Tagged to indicate asbestos contamination
- Double bagged in asbestos labelled bags before removing from the asbestos removal work area.

The bags containing the tools must remain sealed until decontamination or the commencement of the next asbestos maintenance or service task where the equipment can be taken into the removal work area and reused under full control conditions.

PPE should be worn when opening the bag to clean or reuse the equipment or tools, and decontamination should only be performed in a controlled environment.

In some circumstances it may be better to dispose of contaminated tools and equipment, depending on the level of contamination and the ease of replacement.

Personal decontamination procedures:

Personal decontamination involves the removal of all visible asbestos dust/residue from PPE and RPE. Personal decontamination must be undertaken each time a worker leaves the asbestos removal work area and at the completion of the asbestos maintenance or service work. Personal decontamination should be done within the asbestos removal work area to avoid recontamination. Personal decontamination should be carried out where a decontamination unit is not necessary such as during minor or small scale removal and maintenance work.

Asbestos-contaminated PPE must not be transported outside the asbestos removal work area except for disposal purposes. Before work clothes and footwear worn during asbestos removal work are removed from the asbestos removal work area for any reason, they should be thoroughly vacuumed with an asbestos vacuum cleaner to remove any asbestos fibres and the footwear should also be wet wiped.

RPE should be used until all contaminated disposable coveralls and clothing has been vacuum cleaned and/or removed and bagged for disposal and personal washing has been completed. Any PPE used while carrying out asbestos removal work must not be taken home by a worker.

Personal hygiene and careful washing are essential. Particular attention should be paid to the hands, fingernails, face and head.

PERSONAL DECONTAMINATION

Never leave the asbestos removal work area until decontamination is complete.

- Remove any visible asbestos dust/residue from protective clothing using an asbestos vacuum cleaner or wiping down with damp cloths. Warning: do not reuse or resoak damp cloths.
- Carefully remove disposable protective clothing and place into bags (RPE must still be worn).
- Place cloths into disposal plastic bags (200 µm thick).
- Take disposable coveralls off and place into disposal bags (RPE must still be worn).
- Use damp cloths to wipe down footwear and place cloths into disposal bag.
- Seal all plastic bags with duct tape and place each into a second plastic bag.
- Seal this second plastic bag and label/mark as 'Asbestos Waste'.
- Use damp rags to wipe external surfaces of the disposal bags to remove any dust before it is removed from the asbestos removal work area.
- Remove PPE and double bag, seal with duct tape and mark as 'Asbestos Waste'.
- Remove non-disposable PPE and place in container labelled as containing asbestos.
- Remove RPE and double bag, seal with duct tape and mark as 'Asbestos Waste'.
- Ensure the outside of the bags are decontaminated by using a damp cloth.
- Place the damp cloth into disposable bags.
- Dispose of asbestos waste at the appropriate waste facility.

Setting up personal decontamination areas outside the removal work area:

The asbestos removalist must ensure particular areas are set up for people to personally decontaminate themselves and any tools and equipment when they are entering and leaving the asbestos removal work area to eliminate or minimise airborne asbestos from being released from the asbestos removal work area.

These areas are:

- **A dirty decontamination area that includes:**
  - A suitable rack for air-lines to be stored on at the entrance of the area.
  - Equipment for vacuum cleaning or hosing down (by use of a fine mist) contaminated clothing and footwear.
  - Storage for contaminated clothing and footwear.
  - Labelled waste bags/bins for disposing of protective clothing.
  - Shower area with an adequate supply of hot and cold water and toiletries.
- **A clean decontamination area that includes:**
  - Storage for individual RPE in containers or lockers.
  - Airflow towards the dirty decontamination area.
  - Shower area with an adequate supply of hot and cold water and toiletries.
- **A clean changing area that includes:**
  - Storage for clean clothing.

- Separate storage for clean and dirty towels.
- Airflow towards the clean decontamination area.

Below is an example of how a person would enter and leave a removal work area.

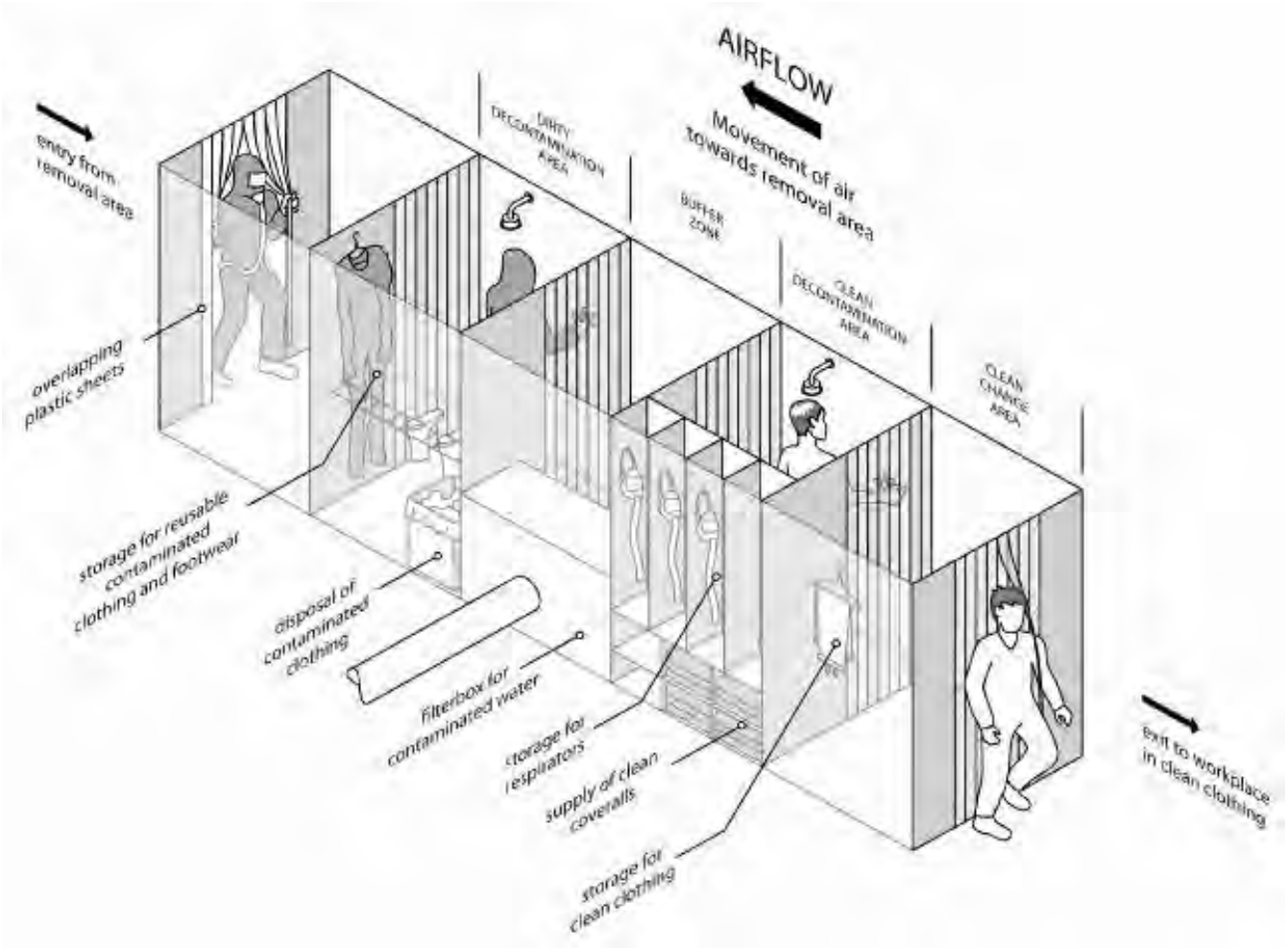
Entering the removal area:

- **Clean change area:** Change into clean work clothes and put on clean protective clothing. Store any removed clothing in a dust-proof container. Move into clean decontamination area.
- **Clean decontamination area:** Put on RPE. Check that it is working properly and there is a good facial seal such as a fit check. Move to the dirty decontamination area.
- **Dirty decontamination area:** Put on any additional PPE that has been stored in the dirty decontamination area such as footwear. Connect to the RPE air supply if required. Move from the decontamination unit to the removal work area.

Leaving the removal area:

- **Asbestos removal area:** Use an asbestos vacuum cleaner to remove any obvious signs of asbestos dust from protective clothing. Remove footwear and leave shoes/boots inside the asbestos removal area next to the decontamination unit (footwear should be stored upside down to minimise further contamination). Proceed into the dirty decontamination area.
- **Dirty decontamination area:** If shoes/boots have not already been removed, remove them and store upside-down within the dirty decontamination area. Disconnect air-line respirator if being used. Shower while wearing protective clothing and RPE. Leaving RPE on, remove protective clothing and place in labelled waste bags. Remove wet underclothing, such as t-shirts or shorts, while showering and place in the storage unit provided within the dirty decontamination area. Pass through the airlock into the clean decontamination area.
- **Clean decontamination area:** Shower and remove RPE. Thoroughly wash hands, fingernails, face, head and respirator. Store RPE in a suitable container within the clean decontamination area. Move to the clean change area.
- **Clean change area:** Change into clean clothing.

Figure 1 Decontamination unit



Decontamination units attached to an enclosure:

A risk assessment should be conducted to determine the number of units required based on the number of workers in the asbestos removal work area. As a guide, one decontamination unit should be provided for every six workers in the asbestos removal work area.

Where men and women are required to use the same decontamination unit, a system of work needs to be implemented to enable them to access the unit separately. In many instances, the only satisfactory way of providing appropriate changing facilities is to provide a mobile or specially constructed on-site decontamination unit.

The decontamination unit should be immediately adjacent to and directly connected with the enclosed removal work area. It should be located as far away as practicable from workplace facilities such as a lunchroom.

The decontamination unit should include a dirty decontamination area, a clean decontamination area and a clean changing area. These areas need to:

- Be large enough to enable workers to adequately decontaminate themselves.
- Be separated by suitable airlocks or buffer zones.
- Have doors with large openings with a hinged flap operating as a one-way valve to ensure there is sufficient airflow through the decontamination unit.

Towels and soap should be provided to allow workers to appropriately decontaminate themselves.

All water from the decontamination facility should pass through a particulate filter or other trap before it passes into sewer mains. The filter or trap should be capable of capturing particles down to 5 µm.

Workers should not smoke, eat or drink in any part of the decontamination unit.

The asbestos removalist may want to have a worker stationed outside an enclosure for the duration of the asbestos removal work to liaise with the project supervisor, communicate with personnel inside the work enclosure and instigate emergency/evacuation procedures if necessary.

Records about these activities should be kept on a daily basis.

Remote decontamination units for friable asbestos removal:

Remote decontamination units are decontamination units not attached to an enclosure when friable asbestos is being removed. Remote units are not located next to the asbestos removal work area and can only be used if a decontamination unit cannot be located immediately adjacent to the asbestos removal work area.

When a remote decontamination unit is to be used, the asbestos removalist would need to implement additional transiting procedures to minimise asbestos contamination of pathways leading from the enclosure to the decontamination unit. These procedures are longer and more complex than non-transiting. This involves the use of 'transiting' PPE and additional facilities to enable the worker to carry out preliminary decontamination before travelling to the decontamination unit for full decontamination.

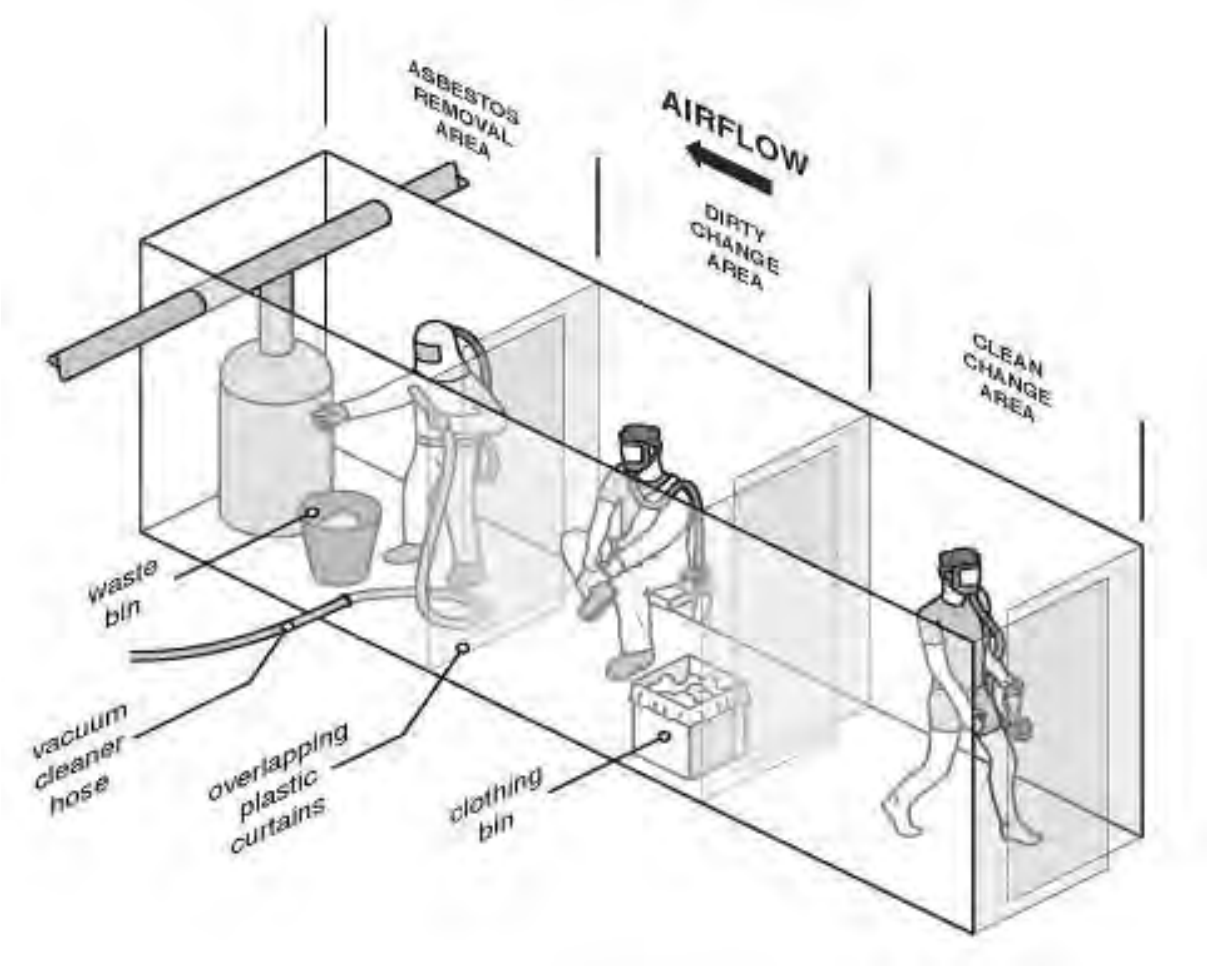
This may include a three-stage airlock isolated changing area, which should be specially constructed and made of 200 µm thick polythene sheeting. The area should be attached to the enclosure and should comprise three compartments separated by weighted sheets to minimise the spread of dust between the compartments.

Before workers enter this changing area, all obvious signs of asbestos dust need to be removed from their protective clothing using an asbestos vacuum cleaner. The isolated changing area is then used to discard outer garments, including coveralls and overshoes, before workers can put on fresh outer/protective clothing for the journey to the decontamination unit. RPE should be worn until the appropriate phase of the decontamination procedure within the remote decontamination unit.

The route of access from the asbestos removal area to the decontamination unit should be suitably signposted and barricaded to restrict public access.

Air monitoring must be conducted in the immediate vicinity of this access route and at other suitable locations outside the asbestos removal area.

Figure 2 Decontamination area



4.7 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.

The laundering facility that is equipped to launder asbestos-contaminated clothing:

- Should be informed of the asbestos contamination
- Should have a management plan in place to control the release of respirable fibres
- Should be constructed of smooth surfaces that are able to be lined with polythene sheeting or easily wiped clean
- May use conventional washing machines provided they are not used for other clothing
- May need to have a laundry room that is under negative pressure to eliminate or minimise the release of airborne asbestos fibres during the laundering process – this can be determined during the risk assessment
- Should have procedures established for cleaning up spills and for the prevention of flooding of neighbouring areas.

The contaminated clothing should:

- Be removed damp and thoroughly wet, then placed in impermeable containers or bags the outside of which are decontaminated and labelled to indicate the presence of asbestos before being sent to the commercial laundering facility.
- Not be allowed to dry out before washing.

At the laundry facility:

- The containers and bags holding the asbestos-contaminated clothing should be opened in the washing machine while being further saturated. As a minimum, P1 respiratory protection must be worn while unloading clothes into the washing machine.
- The empty containers or bags should be disposed of as asbestos waste. Waste water must be filtered and the filtering medium disposed of as asbestos waste.

4.8 WASTE CONTAINMENT AND DISPOSAL:

An asbestos removalist should design the route for removal of the asbestos waste bags or containers through the asbestos removal work area prior to commencement of the asbestos removal work. Only unused bags and heavy-duty 200 µm (minimum thickness) polythene sheeting can be used. Bags labelled for asbestos waste should not be used for any other purpose.

When developing a waste disposal program, the following should be taken into account:

- The containment of waste so as to eliminate the release of airborne asbestos fibres.
- Details of any asbestos or ACM to be left in-situ.
- The types of fittings and supports and whether removal and disposal of these items is part of the work specifications.
- The location and security of waste storage on site.
- The transport of waste within the site and off site.
- The location of the waste disposal site.
- Ensure that the proposed location for the storage and asbestos removal work area and the surrounding area will be unoccupied for the duration of the removal.
- Approvals needed from the relevant local disposal authority.
- Any local disposal authority requirements that may apply to the amount and dimensions of asbestos waste.

The development of the waste disposal program and methods used to transport waste through a building needs to be determined by a competent person (usually the asbestos removal supervisor) following discussions with the person with management or control at the workplace. In occupied workplaces, all movement of waste containers through a building should take place outside normal working hours.

Removal work area waste containment:

The waste disposal program should be included in the asbestos removal control plan and specify the method of transport and routes to be used for removing waste from the asbestos removal area before the commencement of each removal.

Loose asbestos waste must not accumulate within the asbestos removal work area by containing the waste in labelled asbestos waste bags or wrapped in plastic. Once the asbestos waste has been removed from the asbestos removal area, it should either be placed in a solid waste drum, bin or skip for secure storage and eventual disposal, or removed immediately from the site by an environmental protection agency (EPA) approved/licensed carrier for disposal.

The asbestos waste must be disposed of at a licensed asbestos waste disposal site. The disposal process must be in a manner that eliminates the release of airborne asbestos fibres by ensuring:

- Bagged asbestos waste is securely packaged in labelled containers.
- Waste containers are secure during transport.
- The method of unloading the waste is according to waste disposal procedures so that tearing of the plastic lining at the landfill site is prevented.

The asbestos waste must be disposed of as soon as reasonably practicable, whether that is:

- At the end of the removal job.
- When the waste containers are full.
- At the end of each day if the asbestos waste cannot be secured at the removal site.

Asbestos waste bags:

All asbestos waste, friable asbestos and small pieces of non-friable asbestos must be contained to prevent exposure to airborne asbestos fibres. Containment is to be in new heavy-duty 200 µm (minimum thickness) polythene bags that are no more than 1200 mm long and 900mm wide to prevent manual handling injuries.

Controlled wetting of the asbestos waste should be carried out to minimise asbestos dust emissions during bag/polythene sealing or any subsequent rupture of the bag or wrapped bundles. The bags must be twisted tightly and have the neck folded over and secured with adhesive tape (referred to as goose-necking).

To minimise the risk of a bag tearing or splitting and to assist in manual handling, asbestos waste bags should not be filled more than half full (depending on the weight of the items) and excess air should be gently evacuated from the waste bag in a way that does not cause the release of dust.

The bags should be labelled with appropriate signage stating that they contain asbestos and that dust creation and inhalation should be avoided.

The external surface of each bag should be cleaned to remove any adhering dust before the bag is removed from the asbestos removal work area and double bagged outside the asbestos removal areas immediately following the decontamination process.

Polythene sheeting for containing asbestos waste:

Asbestos sheeting and redundant asbestos-lagged pipes and equipment should be contained in heavy-duty 200 µm (minimum thickness) polythene sheeting.

Polythene sheeting should be new (not recycled) as recycled sheeting can have flaws in it. Once wrapped in plastic, the bundles need to be labelled to indicate they contain asbestos so they can be treated appropriately.

Asbestos sheeting and redundant asbestos-lagged pipes and equipment should be double wrapped in the polythene sheeting and adhesive tape applied to the entire length of every overlap to secure the bundles to minimise the risk of the polythene sheeting tearing or splitting.

Removing waste from the removal work area:

Once the waste has been removed from the asbestos removal work area, it should either be:

- Placed in a solid waste drum, bin or skip for secure storage and eventual disposal.
- Immediately removed from the site by the relevant EPA approved/licensed carrier for disposal.

Labels for waste containers and drums:

All containers containing a hazardous chemical such as asbestos must comply with labelling elements of the GHS. The waste drums or bins should be lined with plastic (minimum 200 µm thickness), and labels warning of the asbestos waste should be placed on the top and side of each drum or bin with the words, 'Danger: Asbestos Do not break seal' or a similar warning.

Examples of labels are included below.

Label 1: Sample asbestos waste bag

Sign 1: Sample asbestos removal area

Asbestos waste drums or bins:

All drums or bins used for the storage and disposal of asbestos waste should be in good condition with lids and rims in good working order and free of hazardous residue.

The drums or bins should:

- Be placed in the asbestos removal work area or located as close to the asbestos removal work area as possible before removal work commences.
- Be lined with plastic (minimum 200 µm thickness) and labels warning of the asbestos waste must be placed on the exterior of each drum or bin.
- Have their rims sealed and their outer surfaces wet-wiped and inspected before they are removed from the asbestos removal work area.

Controlled wetting of the waste during drum or bin filling should be carried out to minimise asbestos dust emissions.

Drums or bins used to store asbestos waste must be stored in a secure location when they are not in use. They should not be moved manually once they have been filled. Trolleys or drum lifters should be used.

If the drum or bin is to be reused, the asbestos waste should be packed and sealed so that when the drum or bin is emptied there is no residual asbestos contamination. The drum or bin should be inspected after use to ensure there is

no asbestos residue.

Asbestos waste skips, vehicle trays and similar containers:

If the volume or size of the asbestos waste cannot be contained in asbestos waste bags, drums or bins, a waste skip, vehicle tray or similar container in good condition should be used.

The asbestos should be sealed in double-lined, heavy-duty plastic sheeting or double bagged before it is placed in the skip. However, non-friable asbestos waste may be placed directly into a skip or vehicle tray that has been double-lined with heavy-duty plastic sheeting (200 µm minimum thickness) provided it is kept damp to minimise the generation of airborne asbestos.

Once the skip is full, its contents should be completely sealed with the plastic sheeting. If the skip is emptied at a waste disposal site, procedures for containment of the plastic lining to prevent tearing should be developed.

If asbestos waste cannot be disposed of immediately, the skip may be used for storing the asbestos waste on site over a period of time provided that the contents are secured (for example, using a lockable lid or locating the skip in a secure area) to prevent unauthorised access.

Transport and disposal of asbestos waste:

Disposal of asbestos waste is the final step in the process of asbestos removal work. It is therefore the last point at which the exposure to risks associated with asbestos is likely to occur. The asbestos waste must be disposed of as soon as is practicable at a licensed asbestos disposal site.

The transport of commercial asbestos waste is covered under EPA legislation. Disposal sites are regulated by the EPA and local government regulations.

5. USING AN ENCLOSURE DURING LARGE SCALE REMOVAL WORK:

Large scale asbestos removal includes removal that occurs on a frequent basis, is generally of a longer duration, usually generates a significant amount of airborne asbestos fibres and may pose a serious risk both to workers and others.

Where friable asbestos is removed, a licensed asbestos removalist that holds a Class A licence must remove the asbestos. The licensed asbestos removalist must ensure, so far as is reasonably practicable, the asbestos removal work area is enclosed (sometimes referred to as the 'bubble') to eliminate or minimise the release of airborne asbestos fibres.

When large scale friable asbestos removal work is being undertaken, the asbestos removal work areas should be enclosed and under 'negative pressure' with the use of negative air pressure units.

The use of enclosures in large scale non-friable asbestos removal requiring a Class B licence should be determined on the basis of a risk assessment. Factors such as proximity to other work areas, weather conditions if outdoors, and the amount of material to be removed should be considered.

5.1 Designing and installing an enclosure:

The design and installation of the enclosure should consider:

- Methods used to contain the asbestos removal work area
- Provision and locations of decontamination/changing facilities and negative pressure exhaust units
- Precautions to be implemented to eliminate or minimise the spread of asbestos contamination outside the asbestos removal work area
- Air quality within the enclosure
- Types of lighting, whether natural or artificial
- Temperature within the enclosure to avoid heat stress

- Any other hazards in the enclosure (these must be identified and the risks controlled before any asbestos removal work commences).

The enclosure should:

- Be constructed of heavy-duty plastic sheeting (200 µm minimum thickness) and enclose all the walls, windows and doors. Wooden cleats may be used to anchor the plastic sheeting to walls. Re-milled plastic sheeting should not be used
- Have viewing panels placed in appropriate locations so that the asbestos removal work area can be seen from outside the enclosure
- Have adequate lighting within the enclosure, either:
    - Naturally, using clear plastic or perspex panels in the enclosure walls.
    - Artificially, preferably from outside the enclosure using clear plastic or perspex panels.

During the masking up and later removal of the sheeting, all persons must wear appropriate PPE, for example coveralls, and as a minimum a half-face respirator with P1 filters.

Where the asbestos removal work area connects either to the outside environment or to the rest of the building, it should be enclosed so that an airtight seal is maintained for the duration of the asbestos removal work (for example, windows, ducts, wall cavities and lift entrances).

All movable items should be removed from the asbestos removal area. If this is not possible, move the items from the immediate asbestos removal work area and cover with two layers of plastic sheeting with a minimum overlap of 300 mm between the layers. Both layers should be double taped.

All non-movable items such as fixtures and fittings should be covered with plastic sheeting and the joints sealed.

Airlocks should be placed at the entry points to the change area and constructed using double sets of overlapping plastic with suitable provisions for ensuring a seal.

All floors should be protected with at least one layer of woven plastic to prevent penetration during the asbestos removal work. The joints should be lapped 300 mm and sealed with double-sided tape and duct tape.

If the asbestos removal area is next to areas occupied by unprotected persons, priority should be given to:

- Performing the asbestos removal work during periods when these areas are unoccupied.
- Greater isolation of the asbestos removal area. This is the preferable option.

Consideration should be given to the use of hoarding to form a barrier between the asbestos removal work area and the adjoining occupied areas. A plastic-lined barrier should be erected within this hoarding and a buffer area should be reserved between the hoarding and occupied areas.

Platforms and fixed scaffolding should be erected during the early stages of the work. These structures should ideally be erected on the outside of the enclosed area. Any platforms or fixed scaffolding within the enclosed area must be decontaminated and visually inspected at the end of the asbestos removal work.

All tools and equipment used for asbestos removal work, including asbestos vacuum cleaners, must remain within the asbestos removal work area until the completion of the job.

All the plastic and tape used for the enclosure must be disposed of as asbestos waste. Any temporary structures must be disposed of as asbestos waste if they cannot be decontaminated. An inspection by a competent person will confirm if the structures are free of any visible asbestos.

Work methods should be adapted for the work environment within the enclosure. For example, rest breaks need to be based on a risk assessment taking into account factors such as the weather and heating/cooling requirements.

5.2 Testing an enclosure:

Prior to the asbestos removal work commencing, the licensed asbestos removalist should ensure the enclosure is tested by an independent licensed asbestos assessor.

An independent licensed asbestos assessor should visually inspect, test and smoke the enclosure prior to commencement of the asbestos removal work.

- While smoke is generated within the enclosure, a worker should be outside the enclosure to check for leaks.
- Only smoke-generating devices incorporating non-oil-based, non-toxic smoke fluids can be used. Flares should not be used.
- Smoke (fire) detection devices in the immediate vicinity of the asbestos removal area should be isolated for the duration of the smoke test.
- The results of the smoke test should be documented and a copy provided to the licensed asbestos removalist.

Negative pressure exhaust units should not be used while the smoke test is being conducted.

The effectiveness of the enclosure should be regularly monitored while asbestos removal work is underway (for example, a visual examination, air-monitoring results and negative pressure readings).

If leaks or deficiencies are found during the initial testing of the enclosure, these must be rectified (an expandable foam sealant, tape or equivalent may be used) and another smoke test performed until no leaks or deficiencies are identified.

Following a visual examination of the enclosure and surrounding area, if a leak of asbestos (more than 0.02 fibres/ml) is detected:

- The asbestos removal work must stop until any defects have been rectified
- Before work recommences, it is essential to:
    - Identify the source of the leak/s.
    - Eliminate or minimise further release of airborne asbestos fibres.
    - Seal the leaks in the enclosure.
    - Re-test the enclosure by smoke testing until the enclosure is effective again.
    - Clean any contaminated areas.
    - Conduct visual inspections.
    - Conduct an air monitoring test specific to the incident (air monitoring).
    - Notify the relevant authority where applicable.
    - Re-assess the boundaries of the asbestos removal work area and site.

A supply of expandable foam sealant, polyester insulation or equivalent should be kept on site for sealing leaks.

5.3 Information on pressure exhaust units (negative units):

To prevent the escape of airborne asbestos fibres from an enclosed removal work area, an exhaust extraction fan should be installed so as to create a ‘negative’ air pressure of approximately 12 Pa (water gauge) within the enclosed removal work area.

An exhaust extraction fan should be installed in the enclosure to create a ‘negative’ air pressure of approximately 12 Pa (water gauge) within the enclosed asbestos removal work area. This may require the use of more than one negative pressure exhaust unit.

Units should incorporate warning devices for filter integrity/overload and power failure, and should have a manometer or magnohelic gauge and an audible and visual alarm system.

The negative pressure exhaust unit should be positioned opposite the decontamination unit to enable laminar (smooth) air flow.

- The air entering the asbestos removal work area passes through the decontamination unit or point-of-entry while the air extracted passes through a HEPA filter to remove any asbestos before it is discharged to the outside.
- If this is not possible, consideration should be given to how to set up the enclosure, decontamination unit and negative pressure exhaust unit to enable optimum smooth flow of air through the enclosure so as to minimise dead air pockets. Discharge of the air from the enclosure should be at a location away from other working areas, air-conditioning inlets or breathing air compressors.

The HEPA filter must comply with AS 4260:1997 High efficiency particulate air (HEPA) filters – Classification, construction and performance or its equivalent.

- A coarse pre-filter should be installed on the air intake side of the negative air unit to prolong the useful life of the HEPA filter.
- These pre-filters may need to be changed once per work shift or more frequently depending on dust loads.
- Used pre-filters must be disposed of as asbestos waste.
- A process of regular inspection of the integrity of the HEPA filter and seal fittings in conjunction with a static pressure alarm should indicate failures in the system.

The negative air units should operate continuously (24 hours a day) until all asbestos removal work and decontamination within the enclosure has been completed, a clearance certificate issued and the enclosure dismantled. If the units stop during removal work, the licensed asbestos removalist must ensure all removal work ceases immediately until the problem is rectified and the required number of units are in operation. To minimise the risk of airborne asbestos fibres escaping the enclosure, the delay should be as short as possible to avoid interruption. Consideration should be given to backup negative pressure exhaust units and the use of a generator.

Maintenance work on these units should only be performed after they have been thoroughly decontaminated, or the work may be carried out under controlled conditions, such as in an asbestos removal enclosure while wearing appropriate PPE.

Bulk stripping and cleaning within an enclosure:

Sprayed asbestos insulations need to be wet thoroughly using a fine water spray. Aim to achieve maximum saturation with minimum run-off to minimise any subsequent clean-up and slip hazards.

Wetting, scraping and vacuuming methods need to be used wherever reasonably practicable. Where the asbestos or ACM is covered with cloth, metal cladding or wire reinforcing, it should be wet thoroughly during the removal process.

Once a competent person has determined the removal area is clean, the licensed asbestos removalist should, wherever reasonably practicable, spray clean surfaces within the removal area with tinted PVA or a similar acrylic emulsion using airless spraying equipment. This includes any layer of plastic forming the inner surface of the enclosure to ensure any loose asbestos fibres on the plastic are firmly adhered to prior to its dismantling.

After the PVA has dried and sufficient time has elapsed for it to dissipate, air (clearance) monitoring should take place, where required. The plastic enclosure must not be dismantled until a satisfactory visual inspection and monitoring has taken place.

Dismantling an asbestos removal enclosure:

The licensed asbestos removalist should only dismantle a structure used to enclose an asbestos removal area once all

of the following are done:

- Asbestos removal work has been completed.
- Visual inspection by an independent competent person is satisfactory.
- Air monitoring, in the case of friable asbestos removal, is found to be less than 0.01 fibres/ml.

The plastic that formed the enclosure must be disposed of as asbestos waste, along with any other contaminated material that assisted in forming the enclosure. In some cases, structures used in building the enclosure (other than the plastic that formed the enclosure) may be wrapped and sealed in plastic and not opened until in a similar controlled environment, such as another asbestos removal enclosure (for example, collapsible rods used to form the enclosure frame).

The area from which the enclosure was dismantled must be thoroughly cleaned and inspected. This should be followed by further air monitoring demonstrating the levels are below 0.01 fibres/ml.

Ropes, warning signs and protective plastic isolating public areas should not be removed until:

- The enclosure has been dismantled and removed as asbestos waste.
- Satisfactory air monitoring results have been achieved.
- The removal area and its surrounds have been visually inspected by an independent competent person and found to be satisfactory for reoccupation.

Security and checks when using an enclosure

The licensed asbestos removalist should ensure an employee is stationed outside the asbestos work area for the duration of the asbestos removal work to:

- Liaise with the project supervisor.
- Check and maintain negative air units, compressor units, decontamination units and hot water service.
- Ensure security of the area is maintained.
- Communicate with personnel inside the work enclosure.
- Instigate emergency or evacuation procedures if necessary.

Records of these checks should be made on a daily basis and kept.

6. METHODS FOR SMALL SCALE REMOVAL WORK:

Small scale friable asbestos removal work usually generates enough airborne asbestos fibres to require the use of PPE and generally is carried out only in short periods, for example minor maintenance work. Small scale removal work involves using mini-enclosures, ‘glove bag’ and ‘wrap and cut’ techniques.

6.1 MINI-ENCLOSURE:

Mini-enclosures are suitable for asbestos removal work in areas with restricted access, such as ceiling spaces, and for emergency asbestos removals. Hazards and work procedures that should be considered for large enclosures should also be considered for mini-enclosures.

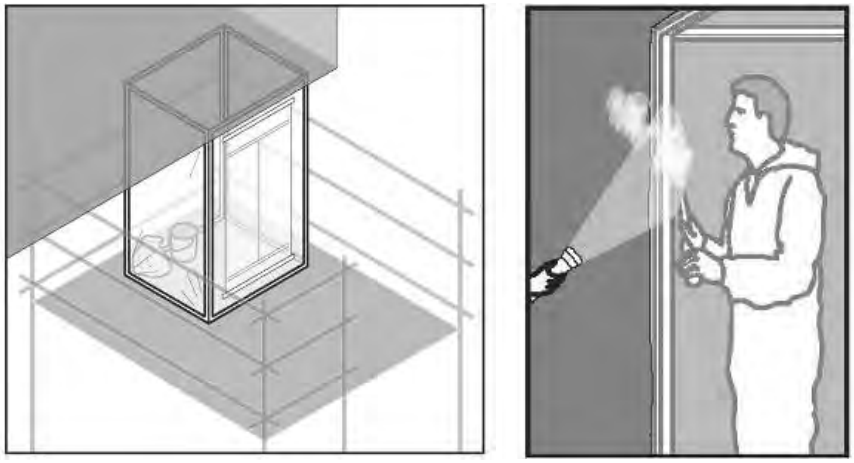
Building the mini-enclosure:

To build a mini-enclosure, the below process should be followed:

- Off-the-shelf mini-enclosures can be used or alternatively timber or other materials can be used to build a frame. The frame of a mini-enclosure can be made from a variety of materials, but has to be strong enough to support the plastic sheeting that forms the enclosure.

- Heavy-duty plastic sheeting (200 µm minimum thickness) should be used for making the enclosure. Do not use recycled or re-milled plastic.
- Make the enclosure large enough to do the work safely, allowing for movement inside the enclosure and all the equipment needed for the removal work such as tools for the task including a bucket of water, rags, sprayer, vacuum cleaner nozzle and hose.
- Machinery that emits exhaust fumes should not be placed in a mini-enclosure.
- Attach the polythene sheeting inside the frame with duct tape.
- Attach the polythene sheeting to the ceiling with masking tape only. Attach it to non-asbestos surfaces with duct tape. The tape used to connect the plastic to the frame should be strong enough to securely hold the plastic to the frame.
- Make an entry slit in one wall of the enclosure and reinforce this with duct tape from inside the enclosure. Attach a polythene sheet above the entry slit to cover it.
- Check all seals inside the enclosures for leaks with a smoke test using smoke tubes for mini-enclosures. The competent person, usually the licensed asbestos supervisor, outside the enclosure should check for leaks outside the enclosure and seals all leaks.

Figure 3 Building and using the enclosure



Dismantling the mini-enclosure

To eliminate or minimise airborne asbestos fibres escaping when dismantling the mini-enclosure, the below process should be followed:

- Put the asbestos waste in a clear bag with an asbestos warning sign or label to indicate the presence of asbestos.
- Clean the enclosed area with an asbestos vacuum cleaner.
- Clean the equipment and polythene sheeting with damp rags.
- Workers leaving a mini-enclosure must follow personal decontamination procedures.
- Inspect the enclosure visually for cleanliness.
- Ensure that a clearance inspection is conducted by an independent licensed asbestos assessor or competent person and a clearance certificate is issued.
- Spray the polythene sheeting with PVA sealant.
- Remove the sheeting from the framework and put it in the labelled asbestos waste container.

- Remove PPE and put it in the labelled asbestos waste container, taping the container closed.
- If the framework was fully protected and had been decontaminated and inspected by the asbestos removalist, it can be reused.

6.2 GLOVE BAG ASBESTOS REMOVAL WORK:

The glove bag removal technique is suitable for the removal of asbestos lagging from individual valves, joints and piping. Glove bags:

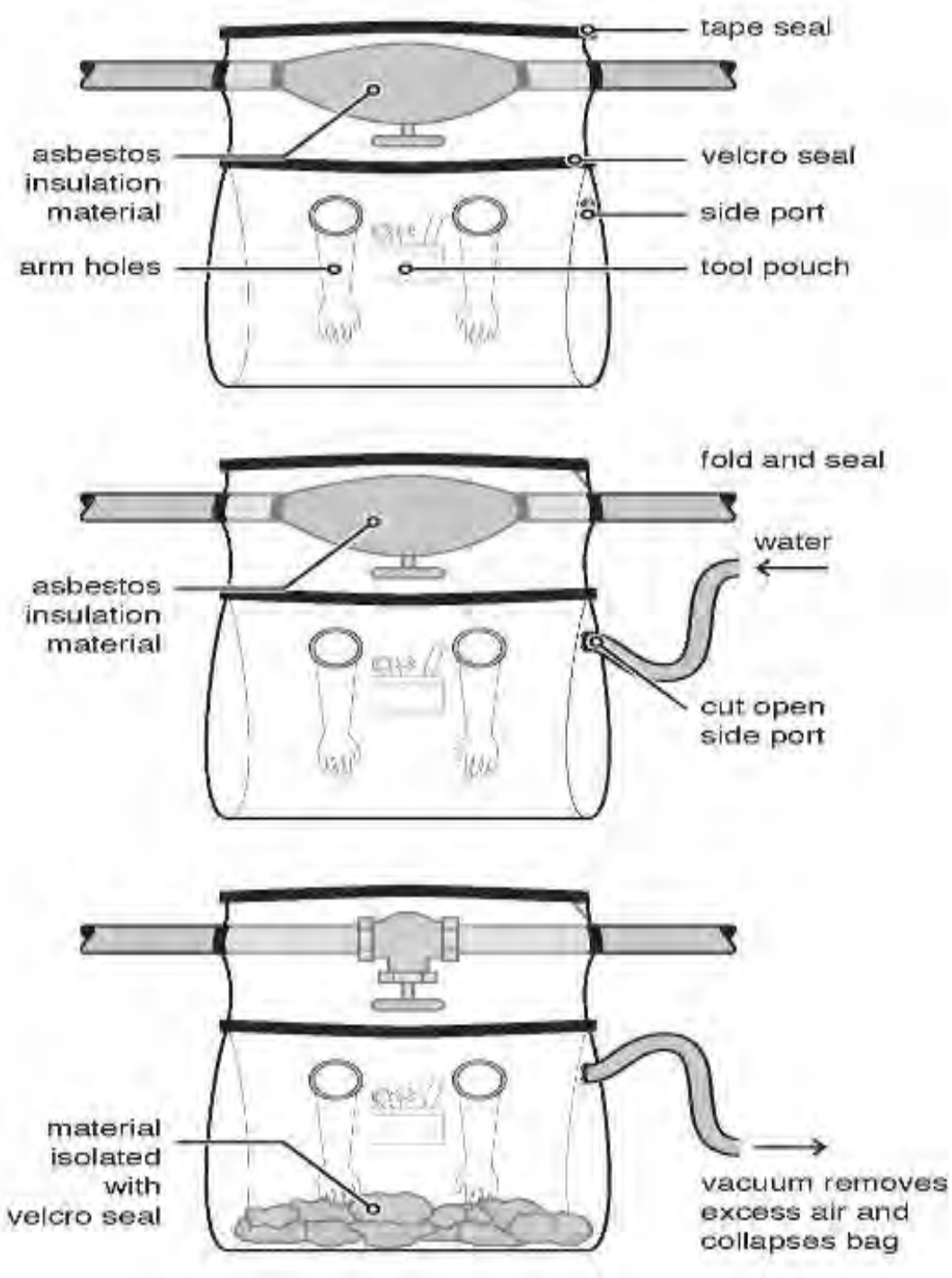
- Are designed to isolate small removal jobs from the general working environment and provide a flexible, easily-installed and quickly-dismantled temporary enclosure for small removal work
- Are single-use bags constructed from transparent, heavy-duty polyethylene with built-in arms and access ports. Glove bags are about one metre wide and 1.5 metres deep
- Contain all waste and contamination within them, eliminating the need for extensive PPE and decontamination. A limitation in using glove bags is the volume of waste material they are able to contain. Care should be taken to prevent overfilling the bag with waste
- Should not be used for hot pipe work due to difficulties in sealing the glove bag to the pipe or maintaining a seal.

The below process should be followed when using the glove bag removal technique:

- Equipment and removal tools for the asbestos removal work should be placed into the glove bag at the start of the job. The tools used to remove the asbestos depend on the nature of the material to be removed.
- A P1 filtered respirator and disposable coveralls need to be worn as a minimum while using glove bags in case a bag ruptures or leaks.
- The glove bag should completely cover the pipe or object. The lagging on either side of the bag should be sound enough to support the weight of the bag and its wet contents.
- Cut the sides of the glove bag to fit the size of the pipe from which asbestos is to be removed. Attach the glove bag to the pipe by folding the open edges together and securely sealing them with duct tape or an equivalent.
- Seal all openings in the glove bag with the tape, including the bottom and side seams to prevent any leakage if there is a defect in a seam.
- Saturate the asbestos with a wetting agent and then remove it from the pipe, beam or other surface. The wetting agent should be applied with an airless sprayer through a pre-cut port, as provided in most glove bags, or through a small hole cut in the bag. Asbestos that has fallen into the bag should be thoroughly saturated.
- Asbestos or ACM is generally covered with painted canvas and/or wire. Any canvas should be cut and peeled away from underneath. If the asbestos or ACM is dry, it should be re-sprayed with the wetting agent before it is removed.
- Clean the pipe or surface once the asbestos has been removed using a wire brush or similar tool and wet-wipe it until no traces of the asbestos can be seen. Wash down the upper section of the bag to remove any adhering asbestos.
- Seal edges of asbestos exposed by the removal or by maintenance activity to ensure the edges do not release respirable asbestos fibres after the glove bag is removed.
- When the asbestos has been removed and sealed, insert a vacuum hose from an asbestos vacuum cleaner into the glove bag through the access port to remove any air in the bag that might contain respirable asbestos fibres. When the bag has been evacuated, squeeze it tightly (as close to the top as possible) and twist and seal it with tape, keeping the asbestos safely in the bottom of the bag.

- Remove the vacuum line from the bag and then remove the glove bag from the workplace for disposal as asbestos waste.
- When the removal is complete, the worker must follow the procedures to personally decontaminate and decontaminate tools according to the decontamination requirements. The asbestos waste in the bag should be sealed and disposed of according to the waste disposal procedures.

Figure 4 Example of Glove bag



6.3 WRAP AND CUT ASBESTOS REMOVAL METHOD:

The 'wrap and cut' technique of removal produces the lowest levels of respirable asbestos fibres and is used instead of full containment procedures when the asbestos is a small amount of non-friable asbestos in good condition and not

damaged. This method is most appropriate when the entire component is to be removed, such as redundant plant and equipment covered with lagging. If lagging has to be removed to allow a pipe to be cut, the glove bag removal method may be used to expose the metal at the point to be cut and for a sufficient length on either side. The pipe should be cut at the centre of the exposed section.

The below process should be followed when using the wrap and cut removal technique:

- The plant or equipment to be removed should be vacuumed with a HEPA-fitted vacuum cleaner and/or wiped with damp rags (which should be disposed of as asbestos waste).
- The plant or equipment should be double wrapped with 200 µm thick plastic and taped so that the asbestos is totally sealed within the plastic. The wrapped plant or equipment is cut from the rest of the plant and equipment using mechanical shears or oxy-cutting tools.
- Only exposed metal can be cut and care should be taken to ensure the plastic wrapping is not punctured or melted. The cut section is then removed as asbestos waste.
- If lagging has to be removed to allow a pipe to be cut, the glove bag removal method may be used to expose the metal at the point to be cut and for a sufficient length on either side. The pipe is then cut at the centre of the exposed section.
- A P1 filtered respirator and disposable coveralls should be worn as a minimum while doing wrap and cut removal work. If the lagging is in very poor condition, such that significant airborne asbestos fibres may be generated, a higher level of respiratory protection may be required or the method of asbestos removal reconsidered.
- On completion of the removal, workers need to follow the personal decontamination procedures and dispose of asbestos waste.

7. CONTROLS FOR SPECIFIC ASBESTOS REMOVAL WORK:

Appendix D provides some additional examples of asbestos removal work.

7.1 REMOVING ASBESTOS-CONTAMINATED SOIL:

Asbestos-contaminated soil comprises non-attached pieces of asbestos cement products and other material containing asbestos uncovered in soil during other work activities. Contamination can be detected during building and road construction and excavation, waste disposal, damage following a severe weather event such as a hail storm, weathering over time, or when asbestos is poorly handled or damaged during removal jobs.

A risk assessment by an independent licensed asbestos assessor or competent person, including contaminated site assessment practitioners, should determine the most appropriate control measures and remediation strategies.

Asbestos-contaminated soil is also subject to requirements of other regulatory agencies such as the EPA, Pubic Health and local governments. Where guidance on the assessment and remediation of contaminated sites is sought, the Assessment of Contaminated Sites National Environmental Protection Measure (NEPM) should be referred to. The contaminated sites NEPM is published by the Environmental Protection Heritage Council (EPHC).

Removal of asbestos from contaminated soil will require a Class A licensed asbestos removalist for any friable asbestos to be removed, or a Class B licensed asbestos removalist if more than 10 m² of non-friable asbestos is to be removed. A person who does not have a licence can remove 10 m² or less of non-friable asbestos. Where there is uncertainty as to whether the amount of non-friable asbestos is more or less than 10 m², a Class A or Class B licensed asbestos removalist should be engaged.

For all asbestos removal requiring a Class A asbestos removal licence, an air monitoring program must be implemented to ensure the control measures do not release airborne asbestos fibre. When all visible asbestos has been removed, and the air monitoring program indicates that the level of respirable asbestos fibres does not exceed 0.01 f/mL (10 per cent of the asbestos exposure standard), the independent licensed asbestos assessor must complete the clearance certificate.

All asbestos and any contaminated soil removed must be disposed of as asbestos waste according to the EPA and the requirements of the local licensed waste disposal facility.

Immediate action:

If the soil is suspected of containing asbestos, the person with management or control of the workplace must assume the soil contains asbestos and cease work immediately. A competent person should take samples of the material for analysis to confirm or refute that assumption.

If confirmed, the person with management or control of the workplace must ensure control measures are implemented to minimise the release of airborne asbestos. The control measures include:

- Preparation of an asbestos management plan for the site.
- Setting the boundaries of the contamination as determined by an independent licensed asbestos assessor or competent person.
- Ensuring there is minimal disturbance of the contaminated soil until the asbestos management procedures have been implemented.
- Isolating and securing the removal work site using signs and barriers.
- Controlling dust with dust suppression techniques (such as water and wetting agents).
- Providing PPE based on the level of contamination and the control measures implemented.
- Sampling and/or air monitoring.
- Providing education and training for workers on hazards and safe work practices to minimise airborne dust exposure.
- Implementing decontamination procedures for the workers and the equipment.

7.2 REMOVING FRIABLE ASBESTOS FROM HOT SURFACES:

Friable asbestos in or on hot metal or machinery presents one of the worst conditions for removal, as airborne asbestos fibres can spread on convection currents in the air and the potential for burns is high.

Removal of work from hot surfaces should be avoided. If possible, the removal should be scheduled and planned around shutdowns, with sufficient time being allowed for the metal or machinery to cool down before removal is attempted. Hot metal removal should be used only in emergency situations and where the use of water sprays may create steam, making the removal task unsafe or more difficult.

In the limited circumstances where the dry removal of asbestos from hot surfaces is the only option (for instance, emergency situations), particular care should be taken in the selection of dust extraction equipment to cope with the convection currents involved, and the selection of appropriate PPE also becomes even more important.

Heat stress should be considered when preparing the asbestos removal control plan, particularly in the selection of PPE and the design of the work program.

Arrangements for the removal of asbestos from hot plant and equipment should be factored into the asbestos management plan for the workplace. This should include cooling requirements and/or the shutdown periods required to achieve adequate cooling.

7.3 REMOVING ASBESTOS IN PLANT AND PIPES OR PITS:

Asbestos products include gaskets reinforced with asbestos that are used in plant and equipment between flanges on pipes to control the temperature and pressure. Asbestos rope was used for lagging pipes and valves and for sealing hatches. Asbestos is also found in friction products such as brake linings and cylinders.

It is likely that the asbestos in gaskets and rope and friction products will be friable. This type of plant and equipment is

subject to the removal of friable asbestos and may be removed using the ‘glove bag’ or ‘wrap and cut’ method. If the plant contains non-friable asbestos, a Class B licensed asbestos removalist can conduct the removal (which could also be removed by an asbestos removalist that does not have a licence).

In the past, telecommunication pits were constructed using asbestos and at the access points there is potential for exposure to airborne asbestos fibres when accessing these pits.

Work installing or modifying telecommunication lines in these pits may require cutting and removal. Where no other asbestos-related removal work is required and the asbestos is non-friable, a Class B licensed asbestos removalist can remove the asbestos; however, a Class A licensed asbestos removalist may also carry out the removal work. If the amount of non-friable asbestos to be removed is less than 10 m^2, it may be removed by a person who does not have a licence.

APPENDIX A – 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

	Building & structures		Plant & equipment	
	Friable	**Non-Friable**	**Friable**	**Non-Friable**
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: • 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

APPENDIX B – RESPIRATORY PROTECTIVE EQUIPMENT:

When selecting RPE, you should also refer to the AS/NZS 1715:2009 Selection, Use and Maintenance of Respiratory Protective Devices and AS/NZS 1716:2012 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

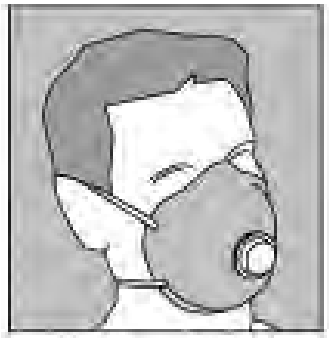


Figure 6 Half-face, particulate filter (cartridge) respirator

Figure 7 Powered, air-purifying, ventilated respirator

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

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.

Table 2 Selecting RPE:

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	Full-face, particulate, filter (cartridge) respirator	P3
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

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 AS/NZS 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 not 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.

APPENDIX C – 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 a clearance certificate if satisfied that the area is safe to reoccupy.

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

APPENDIX D – 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 minimise 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 (for example, 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 µm 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 µm 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 minimise 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, 200 µm 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 µm 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 per cent 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 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 the vinyl sheeting cannot be removed 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.

LIST OF AMENDMENTS:

Date	Page Number	Amendments
3 February 2016	Front Cover	Republication date of February 2016 added to the front cover.
3 February 2016	5	Foreword, 5th paragraph – Standard wording 'The WHS Act and Regulations may be complied with by following another method, such as a technical or an industry standard, if it provides an equivalent or higher standard of work health and safety than the code' added to this section.
3 February 2016	9	Heading: Examples of Class A or B licensed asbestos removal work – 1st dot point – The following words 'removalist and the material to be

		removed is non-friable so the' added.
3 February 2016	35	Shaded box, 1st dot point – Text amended from 'Warning: do not reuse…' to 'Do not reuse…'
3 February 2016	62	Appendix C, *Note:* – 'a' added in front of …clearance certificate…
22 April 2016	Front Cover	Republication date of February 2016 changed to April 2016.
22 April 2016	35	Amendment made on 3 February 2016 was not correct. Text in the shaded box, 1st dot point changed back from 'Do not reuse…' to 'Warning: do not reuse…'

#Chemical Risks

MANAGING RISKS OF HAZARDOUS CHEMICALS IN THE WORKPLACE

Code of Practice - JULY 2012

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FORWARD:

This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.

SCOPE AND APPLICATION:

This Code provides practical guidance on how to manage health and safety risks associated with hazardous chemicals for persons conducting a business or undertaking who use chemicals in their workplace.

A person conducting a business or undertaking can be a manufacturer, importer or supplier of hazardous chemicals, or a business owner who uses, handles, generates or stores hazardous chemicals at their workplace.

This Code applies to:

- Substances, mixtures and articles used, handled, generated or stored at the workplace which are defined as hazardous chemicals under the WHS Regulations.
- The generation of hazardous chemicals from work processes, for example toxic fumes released during welding.

This Code does not apply to the transportation of dangerous goods, which is subject to State and Territory laws based on the requirements under the Australian Code for the Transport of Dangerous goods by Road and Rail (ADG Code).

Manufacturers, importers or suppliers of hazardous chemicals that are used, or are likely to be used, in workplaces should refer to the following Codes of Practice:

- Preparation of Safety Data Sheets for Hazardous Chemicals.
- Labelling of Workplace Hazardous Chemicals.

If you use, handle or store hazardous chemicals listed in Schedule 14 of the WHS Regulations you should also refer to the *Health Monitoring Guide*. Where these types of hazardous chemicals are used, handled or stored at or above the prescribed threshold quantities, the guidance material for *Major Hazard Facilities* should be referred to.

Guidance for work involving asbestos or asbestos containing materials is available in the following Codes of Practice:

- How to Manage and Control Asbestos in the Workplace
- How to Safely Remove Asbestos.

Implementation of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

The WHS Regulations implement a system of chemical hazard classification, labelling and safety data sheets (SDS) requirements based on the GHS. Transition to the GHS will occur over a 5 year period from 1 January 2012 until 31 December 2016.

This Code refers to hazard classes and categories under the GHS, however, it also applies to workplace hazardous substances and dangerous goods classified under the NOHSC Approved Criteria and the ADG Code, respectively. Most substances and mixtures that are dangerous goods under the ADG Code are also hazardous chemicals. Any person conducting a business of undertaking has a responsibility under WHS laws to manage the risks from all hazardous chemicals, including those that are dangerous goods.

How to use this code of practice:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to provisions of the WHS Act and Regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION:

1.1 WHAT ARE HAZARDOUS CHEMICALS?

Under the WHS Regulations, a hazardous chemical is any substance, mixture or article that satisfies the criteria of one or more Globally Harmonised System of Classification and Labelling of Chemicals (GHS) hazard classes, including a classification in Schedule 6 of the WHS Regulations.

However, some hazard classes and categories of the GHS are excluded by the WHS Regulations. See Appendix A for the definition of 'hazardous chemical' and other terms used in this Code.

Most substances and mixtures that are dangerous goods under the ADG Code are hazardous chemicals, except those that have only radioactive hazards (Class 7 dangerous goods), infectious substances (division 6.2) and most Class 9 (miscellaneous) dangerous goods.

A comparison of dangerous goods classifications under the ADG code with those under the GHS is provided in Appendix B.

In relation to chemicals, a hazard is a set of inherent properties of the substance, mixture, article or process that may cause adverse effects to organisms or the environment. There are two broad types of hazards associated with hazardous chemicals which may present an immediate or long term injury or illness to people. These are:

Health hazards – These are properties of a chemical that have the potential to cause adverse health effects. Exposure usually occurs through inhalation, skin contact or ingestion. Adverse health effects can be acute (short term) or chronic (long term). Typical acute health effects include headaches, nausea or vomiting and skin corrosion, while chronic health effects include asthma, dermatitis, nerve damage or cancer.

Physicochemical hazards – These are physical or chemical properties of the substance, mixture or article that pose risks to workers other than health risks, as they do not occur as a consequence of the biological interaction of the chemical with people. They arise through inappropriate handling or use and can often result in injury to people and/or damage to property as a result of the intrinsic physical hazard. Examples of physicochemical hazards include flammable, corrosive, explosive, chemically reactive and oxidising chemicals.

Many chemicals have both health and physicochemical hazards.

1.2 WHO HAS HEALTH AND SAFETY DUTIES IN RELATION TO HAZARDOUS CHEMICALS?

Under the WHS Act, a **person conducting a business or undertaking** has the primary duty to ensure, so far as is reasonably practicable, that the health and safety of workers and other persons are not put at risk from work carried out as part of the conduct of the business or undertaking. This includes ensuring the safe use, handling and storage of substances.

The WHS Regulations include specific duties for a person conducting a business or undertaking to manage the risks to health and safety associated with using, handling, generating and storing hazardous chemicals at a workplace. The duties include:

- Correct labelling of containers and pipework, using warning placards and outer warning placards and displaying of safety signs.
- Maintaining a register and manifest (where relevant) of hazardous chemicals and providing notification to the regulator of manifest quantities if required.
- Identifying risk of physical or chemical reaction of hazardous chemicals and ensuring the stability of hazardous chemicals.
- Ensuring that exposure standards are not exceeded.
- Provision of health monitoring to workers.
- Provision of information, training, instruction and supervision to workers.
- Provision of spill containment system for hazardous chemicals if necessary.
- Obtaining the current Safety Data Sheet (SDS) from the manufacturer, importer or supplier of the chemical.
- Controlling ignition sources and accumulation of flammable and combustible substances.

- Provision and availability of fire protection, firefighting equipment and emergency and safety equipment.
- Preparing an emergency plan if the quantity of a class of hazardous chemical at a workplace exceeds the manifest quantity for that hazardous chemical.
- Stability and support of containers for bulk hazardous chemicals including pipework and attachments.
- Decommissioning of underground storage and handling systems.
- Notifying the regulator as soon as practicable of abandoned tanks in certain circumstances.

The WHS Regulations contain prohibitions or restrictions on certain hazardous chemicals (e.g. certain carcinogens) except in specified circumstances and a restriction on the age of a person who can supply hazardous chemicals.

There are also duties relating to the building, operation and management of pipelines used for the transfer of hazardous chemicals.

Designers, manufacturers, importers and suppliers of substances must also ensure, so far as is reasonably practicable, that the substance they design, manufacture, import or supply is without risks to health and safety. Under the WHS Regulations, manufacturers and importers must correctly classify hazardous chemicals.

The WHS Regulations also impose duties on importers, manufacturers and suppliers relating to the preparation of safety data sheets (SDS), the disclosure of ingredients, packing, labelling and supply of hazardous chemicals.

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks that arise from hazardous chemicals at the workplace.

Workers have a duty to take reasonable care for their own health and safety and must not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to the use, handling and storage of hazardous chemicals at the workplace.

1.3 WHAT IS REQUIRED TO MANAGE THE RISKS ASSOCIATED WITH HAZARDOUS CHEMICALS?

Regulation 351: A person conducting a business or undertaking must manage risks associated with using, handling, generating or storing of hazardous chemicals at a workplace.

Regulation 32-38: In order to manage risk under the WHS Regulations, a duty holder must:

a) identify reasonably foreseeable hazards that could give rise to the risk;

b) eliminate the risk so far as is reasonably practicable;

c) if it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of risk control;

d) maintain the implemented control measure so that it remains effective; AND

e) review, and if necessary revise all risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

This Code provides guidance on how to manage the risks associated with hazardous chemicals in the workplace by following a systematic process that involves:

- Identifying hazards.
- If necessary, assessing the risks associated with these hazards.
- Eliminating or minimising the risks by implementing and maintaining control measures.

- Reviewing control measures to ensure they are effective.

When managing the risks, regard must be had to the following factors:

- The hazardous properties of the hazardous chemical.
- Any potentially hazardous reaction (chemical or physical) between the hazardous chemical and another substance or mixture, including a substance that may be generated by the reaction.
- The nature of the work to be carried out with the hazardous chemical.
- Any structure, plant or system of work that:
    - o is used in the use, handling, generation or storage of the hazardous chemical; and
    - o could interact with the hazardous chemical at the workplace.

Guidance on the general risk management process is available in the:

Code of Practice: How to Manage Work Health and Safety Risks.

Consulting your workers:

Section 47: The WHS Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation with workers and their health and safety representatives is a critical step of managing work health and safety risks. Consulting with and involving workers in the risk management process can assist in ensuring that safety instructions and safe work practices are complied with.

Health and safety representatives must have access to relevant information on matters that can affect the health and safety of workers, for example, hazardous chemicals register and data from monitoring airborne contaminants.

Consulting, co-operating and co-ordinating activities with other duty holders:

Section 46: The WHS Act requires that you consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved in the same activities or who share the same workplace. In these situations, you should exchange information to find out who is doing what and work together in a co-operative and co-ordinated way so that all risks are eliminated or minimised as far as reasonably practicable.

For example, if you engage a contractor to carry out cleaning at your workplace that involves the use of chemicals, you should find out what is being used, whether there are any hazards associated with the chemicals and how the risks will be controlled. This might, for example, include jointly preparing a risk assessment for the chemicals being used, how they will be handled and measures that should be taken to eliminate or minimise exposure. After the risk assessment has been prepared, it is important for all duty holders to co-operate and co-ordinate activities with each other to implement the control measures.

Further guidance on consultation is available in the:

Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination.

1.4 PROHIBITED AND RESTRICTED HAZARDOUS CHEMICALS:

The WHS Regulations prohibit or restrict the use, storage or handling of certain hazardous chemicals in certain situations. For example, substances containing arsenic must not be used in spray painting or abrasive blasting, while a number of carcinogens such as 4-nitrodiphenyls are prohibited from all uses except for genuine research or analysis authorised by the regulator. Certain chemicals can be used, handled or stored in the workplace after receiving approval from the regulator. Schedule 10 of the WHS Regulations provides further information on the hazardous chemicals that are restricted or prohibited for use (see Appendix C of this Code).

1.5 EXPOSURE STANDARDS:

Regulation 49: A person conducting a business or undertaking must ensure that no person at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the relevant exposure standard for the substance or mixture.

Exposure standards represent the airborne concentration of a particular substance or mixture that must not be exceeded. There are three types of exposure standard:

- 8-hour time-weighted average.
- Peak limitation.
- Short term exposure limit.

Exposure standards are based on the airborne concentrations of individual substances that, according to current knowledge, should neither impair the health of, nor cause undue discomfort to, nearly all workers. They do not represent a fine dividing line between a healthy and unhealthy work environment.

Chemicals with workplace exposure standards are listed in the Workplace Exposure Standards for Airborne Contaminants. These exposure standards are also available from the Hazardous Substances Information System (HSIS) on the Safe Work Australia website. The HSIS database contains additional information and guidance for many substances. Although exposure standards may also be listed in Section 8 of the SDS, you should always check the Workplace Exposure Standards for Airborne Contaminants or HSIS to be certain.

Guidance on interpreting exposure standards is available in the Guidance on the Interpretation of Workplace Exposure Standards for Airborne Contaminants.

To comply with the WHS Regulations, monitoring of workplace contaminant levels for chemicals with exposure standards may need to be carried out.

1.6 PREPARING A REGISTER AND MANIFEST OF HAZARDOUS CHEMICALS:

Register of hazardous chemicals:

Regulation 346: A person conducting a business or undertaking must ensure that a register of hazardous chemicals at the workplace is prepared and kept up-to-date. The register must be readily accessible to workers involved in using, handling or storing hazardous chemicals and to anyone else who is likely to be affected by a hazardous chemical at the workplace.

The register is a list of the product names of all hazardous chemicals used, handled or stored at the workplace accompanied by the current SDS (one that is not more than five years old) for each hazardous chemical listed. It must be updated as new hazardous chemicals are introduced to the workplace or when the use of a particular hazardous chemical is discontinued.

Manifest of Schedule 11 hazardous chemicals:

Regulation 347: A person conducting a business or undertaking at a workplace must prepare a manifest of Schedule 11 hazardous chemicals at the workplace.

A manifest is different from a register. A manifest is a written summary of specific types of hazardous chemicals with physicochemical hazards and acute toxicity that are used, handled or stored at a workplace. A manifest is only required where the quantities of those hazardous chemicals exceed prescribed threshold amounts. It contains more detailed information than a register of hazardous chemicals as its primary purpose is to provide the emergency services organisations with information on the quantity, classification and location of hazardous chemicals at the workplace. It also contains information such as site plans and emergency contact details.

The manifest must comply with the requirements of Schedule 12 of the WHS Regulations and it must be updated as soon as practicable after any change to the amount or types of chemicals being used, stored, handled or generated at the workplace.

A manifest quantity is the quantity referred to in Schedule 11 of the WHS Regulations, table 11.1, column 5 for that hazardous chemical (reproduced in Appendix D of this Code).

2. IDENTIFYING HAZARDS

2.1 How to identify which chemicals are hazardous

The first step in managing risks involves identifying all the chemicals that are used, handled, stored or generated at your workplace in consultation with workers. The identity of chemicals in the workplace can usually be determined by looking at the label and the SDS, and reading what ingredients are in each chemical or product. In some cases, a chemical may not have a label or an SDS, for example where fumes are generated in the workplace from an activity such as welding.

A manufacturer or importer must determine the hazards of a chemical against specified criteria. This process is known as classification, and it is the hazard classification of a chemical that determines what information must be included on labels and SDS, including the type of label elements, hazard statements and pictograms. Manufacturers and importers are required to provide labels and SDS, and must review the information on them at least once every five years or whenever necessary to ensure the information contained in the SDS is correct, for example, new information on a chemical may lead to a change in its hazard classification. Specific guidance on what a manufacturer or importer must include in an SDS and label can be found in:

Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals.

Code of Practice: Labelling of Workplace Hazardous Chemicals.

You should always read the label in conjunction with the SDS to make sure all chemical hazards are identified. In other cases, product specification sheets may provide information of the types of hazardous chemicals generated during a process, or by researching other sources such as codes of practice or guidance documents on the process.

The manufacturer, importer or supplier may also provide further information about the hazardous chemical. Information on chemicals can also be found in the Hazardous Substances Information System (HSIS) database.

Hazardous chemicals that are contained in plant forming part of a manufacturing process, such as a piping system, must also be identified. This to ensure controls can be implemented in the event of an accidental rupture or spill or when maintenance or cleaning is required.

Hazardous chemicals generated or manufactured in the workplace:

Some processes will produce hazardous chemicals as by-products or waste. These hazards may not be easily identified when generated at the workplace, for example hydrogen sulphide in a sewer or diesel exhaust fume from truck engines. Information on by-products may be available from a SDS, but not always. You should find out what hazardous chemicals may be produced from work activities, for example: use of welding rods may liberate toxic fumes and vapours, grinding metals release toxic metal dust or fumes, off-gassing of solvent vapours from glues used to manufacture timber products such as Medium Density Fibre (MDF), and dusts released from machining timbers are hazardous to health or can present a dust explosion risk.

If you produce or generate hazardous chemicals in the workplace, you must manage the risks associated with those chemicals

Once you have identified which chemicals are hazardous, you must prepare, maintain and keep a register of hazardous chemicals at the workplace, and a manifest if any Schedule 11 hazardous chemicals are above the prescribed limits (see Section 1.6 of this Code)

2.2 SAFETY DATA SHEETS (SDS):

Regulation 330: The manufacturer or importer must prepare a safety data sheet for the hazardous chemical before first manufacturing or importing the hazardous chemical or as soon as practicable after the first manufacturing or importing and before first supplying it to a workplace.

The manufacturer or importer of the hazardous chemical must provide the current safety data sheet for the hazardous chemical to any person, if the person:

- Is likely to be affected by the hazardous chemical.
- Asks for the safety data sheet.

Regulation 339: The supplier must provide the current safety data sheet for the hazardous chemical when the chemical is first supplied to the workplace and if the SDS is amended, when the hazardous chemical is first supplied to the workplace after the SDS is amended

Regulation 344: A person conducting a business or undertaking must obtain the safety data sheet (and any amended version) for a hazardous chemical from the manufacturer, importer or supplier no later than when the chemical is first supplied at the workplace or as soon as practicable after it is first supplied but before it is used at the workplace.

The SDS contains information on the identity of the product and any hazardous ingredients, potential health effects, toxicological properties, physical hazards, safe use, handling and storage, emergency procedures, and disposal requirements specific to the chemical.

If the SDS for a hazardous chemical is not supplied, you must contact either the manufacturer, importer or supplier to obtain one before the chemical is used at the workplace.

Important hazard information to note from the SDS includes:

Hazard classification	This information will be present on the SDS in the form of hazard statements, for example “may cause cancer” or “flammable liquid”.
The route of entry	This information is important as it lets you assess the health risks to your workers. Routes of entry can include inhalation (breathing it in), skin contact, ingestion (swallowing it), eye contact and injection through high pressure equipment. Depending on the substance, the severity of the harm could range from minor to major, for example, from minor skin irritation to chronic respiratory disease. Some chemicals may not be hazardous by all routes of entry. For example, silica is hazardous only by inhalation so the risk assessment needs to consider how inhalation could occur in the workplace.

Advice or warnings for at-risk workers	The SDS may also include summaries of toxicological data, or advice or warnings for people that might be at risk, such as • People who are sensitised to particular chemicals. • Warnings for pregnant women. • People with existing medical conditions such as asthma.
Instructions on storage	This may include advice on not to store with certain incompatible materials, or advice on potential hazardous degradation products. Examples include – storage of acids and bases, or storage instructions to avoid formation of explosive peroxides in ether during extended storage.
Physicochemical properties	Physicochemical properties can have a significant effect on the hazard. Some key properties to note include: • Physical state: is it solid, liquid or gas? - if solid – what is the potential for dust explosion? - if liquid – is it mobile/viscous/volatile/miscible? - if gas (and vapours) – is it lighter/heavier than air? • Flashpoint, fire point and explosive limits. • Viscosity. • Density. • Particle size. • Vapour pressure. • Solubility and pH. • Reactivity. • Boiling and/or freezing point or range. • Electrical and/or heat conductivity. • The nature and concentration of combustion products.
Use situations that may generate hazardous chemicals	Examples may include: • Use of welding rods which may liberate hazardous fumes and vapours. • Directions for use of chlorine bleach, warning that harmful levels of chlorine gas may be generated if the substance is mixed with incompatible chemicals. • Warnings that some metals, including alkali metals, in contact with water or acids, liberate flammable gas. • Information on by-products or breakdown products like formation of explosive peroxides in ether.

Environmental hazards	The SDS should contain information on environmental hazards and risks. An awareness of this information will assist you to meet any environmental laws in your state or territory.

Chemicals which are generally for domestic use and considered safe in the home may present greater risks in the workplace depending on the manner and quantities in which they are used. This is particularly relevant, for example, where domestic cleaning chemicals are purchased from a supermarket and used in a workplace environment. You should always follow label directions. However, if you are using a domestic chemical in a manner different to normal household use, you should also obtain the SDS in order to determine the level of risks to workers and the appropriate controls. The SDS should contain more detailed information on hazards and risks, for example on incompatibilities with other chemicals and risks from use in enclosed areas.

Providing access to SDS in the workplace:

Regulation 344: A person conducting a business or undertaking must ensure the current SDS is readily accessible to workers who use the hazardous chemical at the workplace and an emergency service worker, or anyone else, who is likely to be exposed to the hazardous chemical

The SDS should be kept in a location near the work area where the substance is used. You must ensure that all workers likely to be exposed to the hazardous chemical know how to find the SDS. In some cases it may be practicable to provide workers with access to SDS via an electronic database, for example in universities where potentially thousands of chemicals may be used, stored or handled at the site. However, the electronic database should be readily available to workers, workers should know how to use it, and a backup means of providing the SDS should also be provided, for example as hard copies in a filing system.

2.3 LABELS:

Regulation 335: The manufacturer and importer of a hazardous chemical must ensure it is correctly labelled as soon as practicable after manufacturing or importing the hazardous chemical.

Regulation 338: The supplier of a hazardous chemical must not supply the chemical to another workplace if they know or ought reasonably to know that the hazardous chemical is not correctly labelled.

Regulation 341-343: A person conducting a business or undertaking at a workplace must ensure that the hazardous chemical, the container of a hazardous chemical or a hazardous chemical in pipe work is correctly labelled.

Hazard information will also be available from the label. Some product labels do not contain all hazard information, for example, some consumer product labels, some agricultural and veterinary chemical products where the label is too small to fit all relevant hazard information, or when hazardous chemicals that are dangerous goods are labelled to meet transport requirements.

The SDS should be referred to when reading a label to ensure all chemical hazards are identified.

Table 1 below shows examples of elements on a label that indicates the type of hazard and the severity of the hazard.

Table 1 Examples of hazard information on a label

Label element	Examples
Signal words – these provide an immediate warning to the reader	Danger or Warning.

Label element	Examples
Hazard statements – these describe the nature and severity of the chemical hazard based on a chemical's classification	May cause cancer. Fatal if inhaled. Flammable liquid and vapour. Causes severe skin burns and eye damage. May cause respiratory irritation.
Pictograms – these provide a pictorial representation of the type of hazard that can be easily recognised at a glance	 Flammable Acute toxicity Warning  Human healthCorrosive

Incorrectly labelled or unlabelled containers:

If you find a container that does not have a label or is incorrectly labelled, action must be taken to correctly label the container. Containers that have had chemicals transferred into them (decanted) in the workplace, and containers of chemical wastes need to be labelled correctly.

If the contents of the container are not known, this should be clearly marked on the container, for example, 'Caution - do not use: unknown substance'. Such a container should be stored in isolation until its contents can be identified and, if it is then found to be hazardous, the container is appropriately labelled. If the contents cannot be identified, they should be disposed of in accordance with relevant local waste management requirements.

2.4 OTHER SOURCES OF INFORMATION:

Additional information regarding hazards and risks associated with the use, handling, generation and storage of hazardous chemicals can be obtained from the following sources:

- Incident records.
- Previous risk assessments.
- Australian Code for the Transport of Dangerous Goods by Road and Rail.
- European Chemical Substances Information System (ESIS).
- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
- National Industrial Chemical Notification and Assessment Scheme (NICNAS).
- Regulatory authorities.
- Trade unions and employer associations.
- Work health and safety consultants

- Internet searches of authoritative websites, such as those of international work health and safety agencies like the US Occupational Safety and Health Administration, or the European Commission Joint Research Centre's Institute for Health and Consumer Protection.

3. ASSESSING RISKS:

A risk assessment is not mandatory for hazardous chemicals under the WHS Regulations, though it is required for specific situations, for example when working with asbestos. However, in many circumstances it will be the best way to determine the measures that should be implemented to control risks. It will help to:

- Identify which workers are at risk of exposure.
- Determine what sources and processes are causing that risk.
- Identify if and what kind of control measures should be implemented.
- Check the effectiveness of existing control measures.

Where the hazards and associated risks are well-known and have well established and accepted control measures, it may not be necessary to undertake a risk assessment, for example, where there are a small number of chemicals in a workplace and the hazards and risks are well understood.

Your risk assessment should also consider foreseeable failures of plant and equipment, as well as any control measures, for example:

- A power failure may impact on the operation of a mechanical ventilation system at the workplace.
- Accidental spills have the potential to corrode or impact on nearby plant or equipment.

Documenting risk assessments is not mandatory, but may help when reviewing where improvements can be made and risks controlled more effectively.

Appendix F and Appendix G provide an overview and checklist of the risk assessment process.

3.1 DECIDE WHO SHOULD DO THE ASSESSMENT:

Assessments are based on a thorough understanding of what happens, or might happen, in the workplace and should be carried out by a person or persons who have:

- A practical understanding of the WHS Regulations, codes of practice and relevant guidance materials.
- An understanding of the work processes involved at the workplace.
- Enough resources to gather information, consult the appropriate people, review existing records and examine the workplace.

The person or persons should also have abilities to:

- Interpret the information on the label and SDS of the hazardous chemical.
- Observe the conditions of work and to foresee potential problems.
- Communicate effectively and consult with workers, contract workers, managers and technical specialists.
- Draw all the information together in a systematic way to form valid conclusions about exposures and risks.
- Accurately report the findings to all parties concerned.

A single person such as a supervisor may be suitably competent to perform simple assessments. In more complex cases, several persons representing a variety of skills may need to be involved in collecting and assessing the information. This may also include workers and their health and safety representatives.

Seeking external assistance:

In some cases, it may be necessary to seek external professional assistance to assist or undertake risk assessments. External assistance may be required to:

- Design an air monitoring strategy.
- Collect and analyse samples.
- Interpret monitoring and testing results.

External professional assistance may also be required in the design, installation and maintenance of control measures, such as ventilation systems or fire protection systems.

3.2 DECIDE WHAT SORT OF RISK ASSESSMENT IS APPROPRIATE:

The type of risk assessment that should be conducted will depend on the nature of the work being performed.

a) **A basic assessment** consists of:

- Reviewing the label and the SDS of the hazardous chemicals and assessing the risks involved in their use deciding whether the hazardous chemicals in the workplace are already controlled with existing control measures, as recommended in the SDS or other reliable sources, or whether further control measures are needed.
- For example, the SDS and label report that a cleaning agent may have potential skin irritation effects and may liberate a toxic gas when in contact with certain other chemicals, while in itself it is non-volatile. The assessment indicates that workers who handle this chemical will require control measures, including the use of protective clothing and gloves and that the chemical must be kept away from incompatible materials. Without such an assessment, skin irritation or intoxication by toxic gas when handling the cleaning agent could have occurred.

b) **In a generic assessment**, an assessment is made of a particular workplace, area, job or task and the assessment is then applied to similar work activities that involve the use of the chemical being assessed.

For example, a business or industry association might do a generic assessment for a number of workplaces that use, handle, generate or store identical chemicals (such as service stations or dry cleaners). When conducting a generic assessment, it is important that the workplace, tasks and hazardous chemicals being assessed are identical in characteristics, properties, potential hazards and risks. Generic assessments are not appropriate for very high risk chemicals such as carcinogens.

c) **A detailed assessment** may be needed when there is a significant risk to health and for very high risk chemicals such as carcinogens, mutagens, reproductive toxicants or sensitisation agents in the case of health hazards. Information on the label and SDS will allow you to determine whether the chemical has these hazards. Schedule 10 of the WHS Regulations provides further information on the hazardous chemicals that are restricted or prohibited for use (see Appendix C of this Code). A more detailed assessment may also be required when there is uncertainty as to the risk of exposure or health.

In order to complete a detailed assessment, further information may be sought and decisions taken to:

- Eliminate the uncertainty of any risks.
- Select appropriate control measures.
- Ensure that control measures are properly used and maintained.
- Determine if air monitoring or health monitoring are required.

It may be necessary to engage external professional assistance to undertake a more detailed assessment.

Structuring risk assessments:

Risk assessments can be simplified by evaluating the nature of the work in smaller, more manageable parts. You do not need to do a risk assessment covering each work activity in the whole workplace. Instead, evaluate the nature of the work by:

- **Dividing up the workplace** - If it is not practicable for the workplace to be assessed as a whole, divide it into smaller units (locations/areas or processes) to make risk assessment more manageable. Walking through the workplace and looking at floor plans or process plans will help you decide how to divide up the workplace.
- **Grouping similar work** - Workers performing similar work or using similar substances may be grouped together if it has been established that their exposures are representative of their group. These are referred to as similarly exposed groups. In this way, you can avoid having to repeat exposure assessments for each and every worker.

  If the work involves a large number of different hazardous chemicals, they may be grouped on the basis of their form, properties and the way they are used or handled. This kind of grouping may be appropriate for example, where:

  - a range of solvent-based paints containing a number of different solvents and additives are used in the same or similar way (for example, sprayed, brushed or applied with a roller); and
  - solvent-based liquid pesticides are used in the same or similar way (for example, decanted, mixed or sprayed)
- **Examining work practices and conditions** - Once you have divided the workplace into manageable units, you should observe and consult with workers to find out how the job is actually done. Workers may sometimes not adhere strictly to standard operating procedures for certain tasks. This could be because they have devised a more efficient and/or safer method for performing that task, or because the control measures or PPE provided make it cumbersome and difficult. Workers should be encouraged to share their views and concerns on working practices and be involved in discussions on how to improve working methods. Also, it is good practice to find out what changes in workplace activities occur during cleaning, maintenance, breakdowns and during staff absences or shortages.

  You should take account of any information about incidents, fires, spills, illnesses or diseases that may be related to the use of the hazardous chemical. Check your accident/incident records. Ask those doing the work if they have experienced symptoms listed on the SDS. This information will help you to determine if exposure has been significant.

Considering both health and physicochemical risks:

Hazardous chemicals may present an immediate or long term risk to human health through their toxicological properties, or a risk to safety of persons and property as a result of their physicochemical hazards. In some cases, chemicals may present both health and physicochemical hazards, for example solvents such as benzene, toluene and xylene.

There are many common elements to assessing risks from health and physicochemical hazards, but also several key differences in the way these risks are assessed. As a consequence, the assessment of health and physicochemical risks are discussed separately in this chapter.

3.3 THINGS TO CONSIDER IN ASSESSING HEALTH RISKS:

The assessment of health risks from hazardous chemicals involves gaining an understanding of the situations where people can be exposed to, or come into contact with the chemicals, including the extent of exposure and how often this can occur. Health risk depends on hazard severity and level of exposure, and thus depends on both the type of chemical and also the nature of the work itself.

As with all risk assessments, the assessment involving chemical hazards needs to consider all workers potentially at risk, including those not directly involved in a work activity, as well as other people such as visitors to the workplace.

The routes of entry by which the chemical can affect your health:

The type of hazard (for example, hazard classifications of carcinogenicity, sensitisation, acute toxicity) and relevant routes of exposure (for example, inhalation, ingestion, skin contact) should be known from the hazard identification step. These are needed in the risk assessment to understand the level of risk from likely or potential exposure scenarios in your workplace.

For particulates in air, the primary health concern is effects on the lungs due to inhalation exposure. For example, crystalline silica is considered hazardous principally because of the long term, irreversible lung effects (such as silicosis), that may arise from prolonged or repeated exposure to excessive concentrations. Its hazardous properties are associated with inhalation, so the evaluation of risk should be based on the potential for breathing in the crystalline silica dust rather than other routes of exposure (for example, contact with the skin). In the case of crystalline silica, it is the respirable fraction of the dust that presents the greatest risk to workers as this fraction contains the smallest particles which can reach further into the lungs causing the most damage.

In contrast, even brief exposures to high concentrations of sodium hydroxide may lead to immediate effects which include irritation and burning of the skin, eyes and respiratory tract and blindness. Its hazardous properties relate to exposure via skin or eye contact and inhalation. Evaluation of risks to health for sodium hydroxide (caustic soda) should therefore consider the potential exposure through all of these routes.

Some chemicals may exhibit ototoxic effects. That is, they may cause hearing loss or exacerbate the effects of noise. Evaluating the use of these chemicals should be carried out in conjunction with the:

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

The physical form and concentration:

Some substances may be virtually harmless in some forms (such as a block of metal, a piece of wood or granulated solid chemicals) but may be very hazardous in another form (such as fine dust particles or fume that can be readily inhaled or solutions that may be splashed and readily absorbed through skin). This is also an important consideration in assessing risks from physicochemical hazards.

The concentration of hazardous ingredients is also an important factor in the overall risk. Concentrates or pure substances may be extremely hazardous, while dilute solutions of the same chemical may not be hazardous at all.

The chemical and physical properties of the substance:

Gases or liquids with low boiling points or high vapour pressures can give rise to high airborne concentrations in most circumstances, whereas high boiling point liquids such as oils are only likely to create a hazardous airborne concentration if they are heated or sprayed. Chemicals with a very low or high pH (for instance, acids and caustics respectively) are corrosive to the skin and eyes.

Some substances give off distinctive odours which can alert workers to the presence of a hazardous chemical. For example, hydrogen cyanide has a smell of bitter almonds. However, not everyone can smell hydrogen cyanide and higher concentrations of hydrogen cyanide can also overload nasal receptors resulting in workers being unable to detect it. Hazardous chemicals can also have no odour. Thus, odour should not be relied on as a means of detecting the presence of hazardous chemical.

The chemical and physical properties are also important in assessing risks from physicochemical hazards, described later in this chapter.

Determining who could be exposed, and when this could occur:

Workers can come in contact with a hazardous chemical and any waste, intermediate or product generated from the use of the substance if they:

- Work with it directly.
- Are in the vicinity of where it is used or likely to be generated.

- Enter an enclosed space where it might be present.
- Disturb deposits of the substance on surfaces (for example, during cleaning) and make them airborne.
- Come into contact with contaminated surfaces.

You should consider all people at the workplace, including those who may not be directly involved in using, handling, storing or generating a hazardous chemical, such as:

- Ancillary or support/services workers (be aware that cleaners, maintenance and laboratory staff are often exposed to both the hazardous chemicals they use in the course of their work, such as cleaning products, and the hazardous chemicals used in the workplace by other workers).
- Contractors.
- Visitors.
- Supervisors and managers.

You should consider:

- How specific tasks or processes are actually carried out in the workplace (for example, decanting, spraying, heating). By observing and consulting workers you can find out if they are not adhering strictly to standard procedures or if procedures are not adequately providing protection to workers.
- The quantity of the chemicals being used. Use of larger quantities could result in greater potential for exposure.
- The risk controls in place and their effectiveness. For example, a ventilation system may be in use but when poorly designed, installed or maintained it may not achieve the correct level of protection (such as if filters are not regularly cleaned).
- Whether each worker's work technique has a significant bearing on their level of exposure – poor techniques can lead to greater exposure.
- Workers who may be working alone with hazardous chemicals and if any additional precautions or checks may be necessary in case they become incapacitated.

How often is exposure likely to occur and for how long?

The total dose (amount) of a hazardous chemical a worker is likely to receive increases with an increase in the duration or frequency of exposure. Estimations of the duration and frequency of exposure can be based on observation, knowledge and experience of the work. Seek information from your workers and their health and safety representatives to find out:

- Which work activities involve routine and frequent exposure to hazardous chemicals (for example, daily exposure, including during end of shift cleaning) and who are the people performing these activities?
- What happens when non-routine work, production of one-off items or isolated batches, trials, maintenance or repair operations are performed?
- What happens when there are changes to work practices in events such as cleaning, breakdowns, changes in volume of production, adverse weather conditions?
- Are there differences between workers within a group? Anyone whose work habits or personal hygiene (for example, washing before eating, drinking or smoking) are significantly different should be considered separately.

What is the estimated exposure to hazardous chemical?

Once you have investigated the hazardous chemicals, the quantities used, the frequency and duration of exposure, the effectiveness of the controls already in place, and whether workers are working directly with the substance this information should then be used to estimate the level of exposure.

Inhalation exposure can be determined by personal sampling. Information on the level of airborne concentrations of chemicals can also be obtained from static area sampling, however this method is not acceptable for determining compliance with exposure standards.

Air monitoring should be carried out by a person such as an occupational hygienist with skills to carry out the monitoring according to the appropriate standard and to interpret the results. Results from air monitoring indicate how effective your workplace controls are, for example whether ventilation systems are operating as intended. Records of air monitoring for airborne contaminants with exposure standards must be kept for a minimum of 30 years, and must be available to workers who are exposed.

An estimation of the amount of exposure to hazardous chemicals can sometimes be obtained by observation. For example, you might look for evidence of fine deposits on people and surfaces, or the presence of dusts, mists or fumes visible in the air (for example, in light beams) or the presence of odours.

An indication of the airborne concentrations of hazardous chemicals can often be obtained by simple tests, such as indicator tubes or dust lamps. However, in most cases the amount of exposure may vary throughout the day, so such tests may not establish workers' exposure with confidence and it will be necessary to undertake detailed air monitoring. For chemicals that present a very high hazard, such as carcinogens, mutagens and reproductive toxicants, you should consider undertaking air monitoring to determine the level of exposure.

Complying with exposure standards:

As described in Section 1.5 of this Code, you must ensure that no person at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the exposure standard for the substance or mixture. Air monitoring may be necessary to ensure that workers are not exposed to airborne concentrations above the chemical's exposure standard.

Some chemicals with exposure standards can also be absorbed through the skin – these are given a notation of 'Sk' in the publication *Workplace* Exposure Standards for Airborne Contaminants.

Biological monitoring may be a helpful means of assessing a workers' overall exposure to a hazardous chemical that can be absorbed through the skin as well as inhaled.

Where results of monitoring show concentrations of airborne contaminants approaching or exceeding the exposure standard, you should review your control measures. Even if monitoring indicates that exposure is below an exposure standard, sensitive workers may still be at risk. Exposure standards do not represent a 'no-effect' level which makes exposure at that level safe for all workers, therefore you should ensure that exposure to any hazardous chemical is kept as low reasonably practicable. This includes exposure to hazardous chemicals that do not have exposure standards.

Some chemicals, such as isocyanates, are known to be sensitisers and can induce an adverse reaction in workers at levels well below the exposure standard once sensitisation has occurred. If a worker becomes sensitised to a chemical, the exposure standard for that chemical is no longer relevant and control measures such as improving engineering controls or job rotation to remove the affected worker from potential exposure to the chemical should be implemented.

For more information on how to interpret exposure standards and comply with the WHS Regulations, refer to Safe Work Australia's Workplace Exposure Standards for Airborne Contaminants and Guidance on the Interpretation of Workplace Exposure Standards for Airborne Contaminants.

3.4 HOW TO ASSESS PHYSICOCHEMICAL RISKS:

The assessment of physicochemical risks in the workplace is different in many respects from that needed when assessing health risks. Whereas health risks arise from interaction of people with the chemical, physicochemical risks arise mainly from hazardous chemicals where they come into contact with other things such as ignition sources.

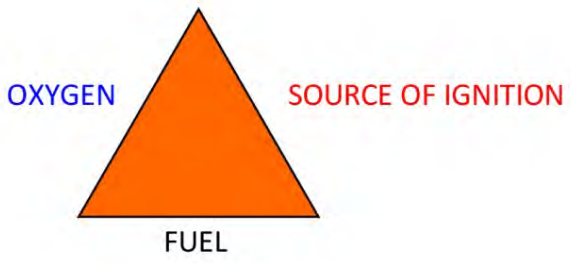
Fire and explosion:

Regulation 51-52: A person conducting a business or undertaking must manage the risk to health and safety associated with a hazardous atmosphere or an ignition source in a hazardous atmosphere at the workplace.

Fire and explosion can result in catastrophic consequences, causing serious injuries or death of workers, as well as significant damage to property. They occur when the following three primary elements come together (commonly referred to as the fire triangle – see Figure 1):

- A source of fuel (a flammable or combustible substance).
- A source of oxygen (usually in the air).
- An ignition source (a source of energy sufficient to cause ignition).

Figure 1 Fire triangle



When identifying hazards you should have identified all of the sources of fuel in your workplace that could contribute to fire and explosion risks. Fuels that present the highest risk are those hazardous chemicals that are flammable (for example, flammable solids, liquids or gases, including their vapours and fumes), other fire risk substances in other hazard classes (for example, pyrophoric liquids and solids that ignite spontaneously in contact with air, substances that react with water to emit flammable gasses) and other materials that are not hazardous chemicals, like wood, paper and leaves, and other combustible materials that contribute to the fire load.

You should also identify sources of oxygen, such as oxygen gas and compressed air in cylinders, chemical oxidisers and peroxides. Oxygen is always present in the air. A list of common fuel and oxygen sources are listed in Appendix H.

Note: Chemical reactions and other processes which generate gases can also cause explosions through an increase in the pressure in the container in which the chemical is stored if the gas cannot escape, even if that gas does not itself ignite.

Identifying ignition sources:

Ignition sources can be any energy source that has the potential to ignite a fuel. They can be categorised into three broad types: flames, sparks and heat. Some common examples of ignition sources are provided in Table 2.

Table 2 Common examples of ignition sources:

Type of ignition source	Examples
Flames	Welding flames, gas heaters, pilot lights
Sparks	Welding arcs, starters for fluorescent lighting, electric motors, electrical equipment like power points, cigarette lighters, switches and telephones Static electricity including from friction sources

	Lightning Friction from drilling, grinding, scraping of metal on concrete
Heat	Hot surfaces including light bulbs, ovens, radiators or heaters, flue pipes, vehicle engines and exhaust systems, pumps and generators Exothermic chemical reactions (those which generate heat)

Some electrical equipment may also be a source of ignition. However, not all electrical equipment is an ignition source if it is specifically designed so that it does not create sparks. This type of equipment is referred to as “intrinsically safe”

You must identify any ignition source in your workplace that has the potential to ignite a flammable or combustible material. You should also consider sources of ignition that are adjacent to your workplace or may periodically come into your workplace, for example vehicles (with hot engine and exhaust systems) making deliveries, visitors or other portable items like cordless power tools, radios and fans.

Other factors affecting fire and explosion risks:

The following physical and chemical characteristics of materials can influence the level of risk of a fire or explosion occurring.

Form and physical state:

The form or physical state of chemicals, substances or other materials can have a significant influence on the level of risk of a fire or explosion. The physical state of a material is generally considered as either solid, liquid or gas, however materials can be further categorised as aerosolised droplets, vapours, fumes, mists, powders, dusts or fibres.

Bulk materials in solid, liquid and gas forms behave differently and present different risks. Liquids spread readily compared to solids and have a greater risk of coming into contact with an ignition source if spilled. Gases present a greater risk as concentrations in air are generally higher than for liquids (and their vapours) and can spread more rapidly. Depending on the vapour density, some gases can flow across surfaces in a similar way to liquids, rather than dissipating quickly. For example, vapours which have a density greater than air can move along the floor and spread to adjacent work areas where ignition sources may be present, thereby creating a significant risk in those areas.

Temperature and pressure:

Changes in temperature and pressure can affect the properties of a chemical.

The explosive range of a chemical (for instance, its lower and upper explosive limits) can change with temperature. At higher temperatures, the lower explosive limit is usually lower, meaning that the substance is more likely to ignite at lower concentrations in air. Heating solid or liquid combustible substances can also increase the vapour pressure (for instance, the concentration of vapours emitted) of the substance making it more likely to ignite.

Handling chemicals under pressure increases the risk in several ways. Any loss of containment will occur more rapidly than under normal atmospheric pressure so that more hazardous chemicals are released. Increasing pressure generally increases temperature of the material, and some chemicals also become unstable at higher temperatures and pressures causing an uncontrolled decomposition or reaction.

Confinement:

The effects of an explosion can be exacerbated where the fuel and air mixture is contained, for example in a tank, duct or pipework, as well as in larger structures like silos, rooms or buildings. Explosions can be more violent than when unconfined, and flying debris (such as from the container or building) can cause serious injuries or death.

Fire risks involving chemical oxidisers:

Chemical oxidisers can react violently and unexpectedly with many chemicals such as organic material (for example, wood, paper, cellulose products), hydrocarbon solvents (for example, mineral turpentine, petrol, diesel) and other organic (carbon based) chemicals (for example, ethanol, mineral oils).

You should assess any situation where an oxidiser could come into contact with these types of materials. This includes any containers and other equipment used in handling or transferring the chemicals. Oxidisers should be handled in compatible containers and with compatible equipment to avoid a dangerous reaction occurring.

It is important to note that, since oxidisers provide oxygen through the chemical reaction, rather than air being the oxygen source, a risk of fire or explosion can still exist even if these materials are handled under an inert atmosphere like nitrogen.

Fire risks from other chemical reactions:

Fires and explosions can occur as a result of chemical reactions. Many chemical reactions are exothermic – that is they give off heat during the reaction. This heat can act as an ignition source igniting any fuels present, pressure can build up in enclosed systems (for example, containers, flasks, pressure vessels) causing the container to rupture or even explode.

You should assess any situation where incompatible chemicals could interact and cause a dangerous or uncontrolled violent reaction.

Dust explosion risks:

Dust explosions present a significant risk in some workplaces, however they are often overlooked. Dust explosions usually occur where combustible dusts (or fibres, for example from paper, grain, finely divided organic compounds and metals) have accumulated and are then disturbed and released into the air, coming into contact with an ignition source. Common ways in which dusts can be disturbed include from wind when opening doors or windows, during cleaning or sweeping up of waste or using compressed air to blow out material accumulated in crevices, gaps or in machinery.

Dusts may also be generated transferring materials, such as filling the hold of a ship or a silo with grain (liberating grain dust).

When the dust cloud comes into contact with an ignition source such as a flame, hot surface or spark, ignition can occur causing an explosion. Dust-air mixtures can be classified as hazardous atmospheres in the same way as other flammable materials like vapours from flammable liquids and gases.

Dust clouds can be generated by pressure from an explosion in another area, causing damage and propagation much greater than the original explosion.

Effect of particle size on dust explosion risk:

The size of particles in dust can have a significant impact on the explosion risk. Smaller particles have a greater surface to mass ratio and present a greater risk, for example a block of metal such as a metal ingot may be practically inert but could be extremely reactive when in the form of filings or shavings, dust or powder. Similarly, the risk from an aerosol (for instance, fine droplets in air) form of flammable liquid is much greater than for the bulk liquid. Processes that generate fine particles, like grinding and milling of flour and nanomaterials can present significant risks. Special control measures may be needed for handling such materials.

The classification of dust hazardous atmospheres is complex and depends on many factors, including the rate of dust dispersion and sedimentation characteristics, and particle size. Further information is contained in the following Australian Standards:

AS/NZS 4745: Code of practice for handling combustible dusts

AS/NZS 60079.10.2: Explosive atmospheres – Classification of areas – Combustible dust atmospheres

Common examples of the types of industries and processes that have a potential for presenting a fire, explosion or implosion risk are listed in Appendix I.

Off-site risks:

Some activities, systems of work, structures and equipment that are not directly involved with the use, storage and handling of hazardous chemicals in the workplace may create a hazard that you need to be aware of when undertaking your risk assessment. These include:

- Hazardous chemicals on adjacent or nearby premises that could be ignited by activities at your workplace, and other substances and materials that are not hazardous chemicals but that could add to the overall fire load, such as wooden pallets, paper, combustible liquids or other combustible materials.
- Activities and installations on adjacent premises, such as the operation of plant, equipment and vehicles, deliveries of hazardous chemicals, personnel movements in normal and emergency situations, visitor access and the trial of site emergency procedures.
- The proximity of sensitive facilities which may be put at risk by the presence of hazardous chemicals and during an emergency, such as schools, hospitals, child and aged care facilities, theatres, shopping centres and residences. These may require special consideration when planning for emergencies.
- The presence of incompatible materials, either other chemicals or the materials that plant, equipment, storage and handling systems are made of which could react with the chemicals being stored or handled.
- Foreseeable failures of plant, equipment, storage systems, as well as natural disasters or extreme weather events such as temperature extremes, wind, lightning or rainfall, including the potential for flooding.
- Other failures which could occur and events which may give rise to new hazards or greater risk. Any examination should be systematic, and include consideration of the possibility of human error in the system's operation.

Risks from corrosive substances:

Hazardous chemicals that are corrosive to metals can cause damage to plant and equipment, such as containers, pipes, fixtures and fittings. Corrosion can lead to leaks or complete failure and loss of containment of the chemical, resulting in serious damage to property, exposure of workers to the hazardous chemicals and potential injury and death.

Compressed gases:

Compressed and liquefied gases are used as fuel, a source of oxygen or as shielding gases in certain types of welding. The hazards associated with compressed and liquefied gases include fire, explosion, toxicity, asphyxiation, oxidation and uncontrolled release of pressure. Gas leakage is one of the greatest hazards.

Cylinders contain large volumes of gas under high pressure and precautions need to be taken when storing, handling and using cylinders.

Asphyxiation hazards:

Asphyxia is a condition that occurs where there is lack of oxygen. This can occur either through:

- Consumption of oxygen in the air (burning of fuel, or oxidation process such as microbial activity or rusting)
- An accumulation of gases displacing oxygen in air
- Inhalation of the chemical affecting the ability of the body to use oxygen (for example, hydrogen cyanide can asphyxiate a person by binding to haemoglobin in the blood following inhalation).

All gases, including fuel gases (for example, hydrogen, acetylene and liquid petroleum gas) and inert gases (for example, argon, helium and nitrogen) are an asphyxiation hazard in high concentrations.

Too little oxygen in the air that we breathe can cause fatigue and in extreme cases death. Using compressed and liquefied gases can result in dangerously low levels of oxygen. For example, gases that are heavier than air can accumulate in low lying areas such as pits, wells and cellars and gases that are lighter than air can accumulate in high areas such as roof spaces and lofts. Working in an enclosed or confined space with inadequate ventilation, where hazardous vapours can accumulate, is a potential asphyxiation hazard.

You should identify possible causes of asphyxiation in your workplace. In welding and allied processes, asphyxiation can occur from gas slowly leaking in a work area.

Compressed air:

Compressed air can be hazardous and should be handled carefully by workers. For example, the sudden release of gas can cause hearing damage or even rupture an eardrum. Compressed air can also deeply penetrate the skin resulting in an air bubble in the blood stream known as an embolism. Even a small quantity of air or other gas in the blood can be fatal.

Ensuring workers are trained to handle compressed air properly can eliminate many of the associated risks. Training and work procedures should emphasise the safe use of air tools and safeguard against the deliberate misuse of compressed air. Also, maintaining air receivers properly prevents the potential for an explosive rupture.

4. CONTROLLING RISKS:

4.1 THE HIERARCHY OF CONTROL:

There are a number of ways to control the risks associated with hazardous chemicals. Some control measures are more effective than others. Control measures can be ranked from the highest level of protection and reliability to the lowest. This ranking is known as the *hierarchy of control*.

You must always aim to eliminate a hazard and associated risk first. If this is not reasonably practicable, the risk must be minimised by using one or more of the following approaches:

- Substitution.
- Isolation.
- Implementing engineering controls.

If a risk then remains, it must be minimised by implementing administrative controls, so far as is reasonably practicable. Any remaining risk must be minimised with suitable personal protective equipment (PPE).

Administrative control measures and PPE rely on human behaviour and supervision and when used on their own, tend to be the least effective ways of minimising risks.

Eliminating the hazard:

This means removing the hazard or hazardous work practice from the workplace. This is the most effective control measure and must always be considered before other control measures. For example, not using a hazardous chemical or eliminating exposure by:

- Using nails instead of using chemical based adhesives.
- Eliminating a handling activity and potential worker exposure by purchasing pre-mixed or diluted chemicals instead of manually mixing or diluting chemicals at the workplace.

Substitution:

Substitution is the replacement of a hazardous chemical with a chemical that is less hazardous and presents lower risks, for example:

- Substituting a less volatile material to control a vapour hazard may cost less than the installation and maintenance of a mechanical ventilation system.
- Substituting a highly flammable liquid with one that is less flammable or combustible.
- Using hazardous chemicals with a single hazard class rather than those with multiple hazards.
- Substituting high hazard chemicals like carcinogens, mutagen, reproductive toxicants and sensitisers, with less hazardous chemicals.
- Using diluted acids and alkalis rather than concentrates.
- Using a product in either paste or pellet form rather than as dust or powder.

Isolation:

Isolation involves separating people from the chemicals or hazards by distance or barriers to prevent or minimise exposure. Examples of isolation include:

Isolate workers from chemicals

- Use of closed systems such as those used during the processing and transfer of flammable liquids in petroleum refineries, or the use of glove boxes or glove bags.
- Placing a process, or a part of it, within an enclosure which may also be fitted with exhaust extraction to remove contaminants.
- Isolating operations in one room with access restricted to properly protected personnel.
- Placing operators in a positive pressure cabin that prevents airborne contaminants entering.
- Distancing workers from hazardous chemicals and any potential hazards generated by their use.

Isolate chemicals from other chemicals:

- Hazardous chemicals should be physically separated from any chemicals or other things that may be incompatible. This is achieved by distance, barriers, or a combination of both barriers and distance.
- Isolation as a control measure is usually used to control physicochemical risks (for hazardous chemicals that are dangerous goods) because of the greater consequences when incompatible materials interact. However it is also important to consider isolation for other hazardous chemicals. The choice of isolation measure used will depend on a range of factors, including:
    - The quantity of hazardous chemicals stored and handled in the work area.
    - The types of installation involved and the processes applied to the hazardous chemicals in the work area and their associated hazards.
    - All other activities in the work area which may increase the risks.
    - Any other control measures in place that will minimise the risks.

    If possible, separation distances should be applied in a way that would not require additional control measures. If this is not possible, barriers may be required.

    When choosing to use a barrier, you should consider:

    - The effect that climatic elements may have on a barrier and its effectiveness.
    - The level of fire resistance provided by the barrier.
    - The structural capability which may be required to withstand weather, and overpressure resulting from internal or external incidents.

When storing chemicals on shelving or other storage systems, hazardous chemicals should not be stored above or below other chemicals or other things which may be incompatible, potentially interact or contaminate. Hazardous chemicals should never be stored where they could contaminate food, food packaging and other items like personal use products, cosmetics, cigarettes, medication and toiletries.

Engineering controls:

Engineering controls are physical in nature, including mechanical devices or processes that eliminate or minimise the generation of chemicals, suppress or contain chemicals, or limit the area of contamination in the event of spills and leaks. They often involve partial enclosure, use of exhaust ventilation or automation of processes. Examples of engineering controls include:

- Using intrinsically safe electrical equipment in hazardous areas.
- Using robots to minimise operator exposure, for example, spraying in coating operations.
- Partially enclosed and ventilated spray booths or fume cupboards.
- Fully enclosed ventilation booth (see diagram 1).
- Local exhaust ventilation to capture airborne contaminants close to their point of release (see diagrams 2 and 3).

Local exhaust ventilation is designed to capture airborne contaminants close to the source of generation. This prevents them contaminating the working environment. The ventilation should be arranged to prevent contaminants from entering the breathing zone of the operator. The exhaust extraction shown in diagram 4 is a well-designed system, while that shown in diagram 5 is poorly designed as it carries contaminants directly through a person's breathing zone.

Diagram 1 Abrasive blasting cabinet

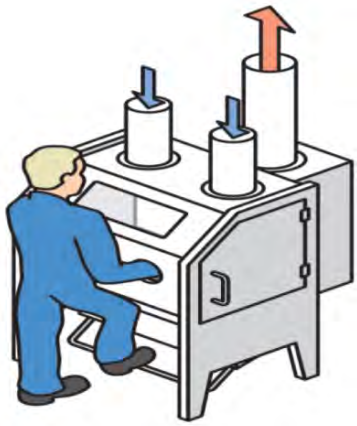


Diagram 2 Side hood ventilation for an open surface tank

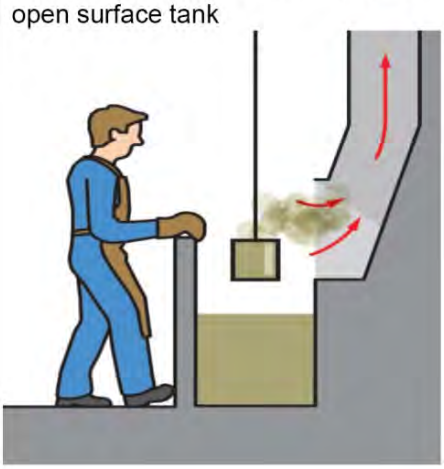


Diagram 3 Enclosure around a grinding wheel

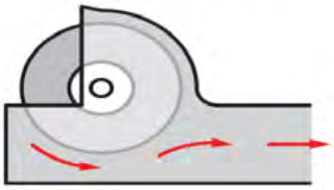


Diagram 4 Good design carries away contaminants from the operator's breathing zone

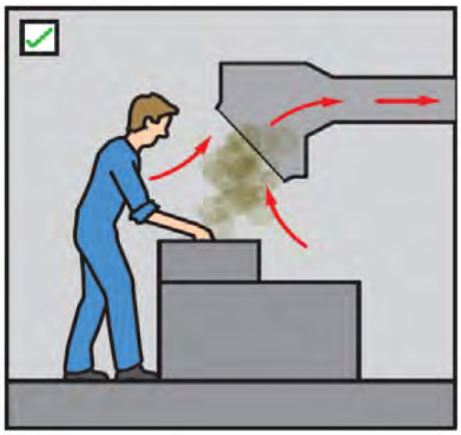
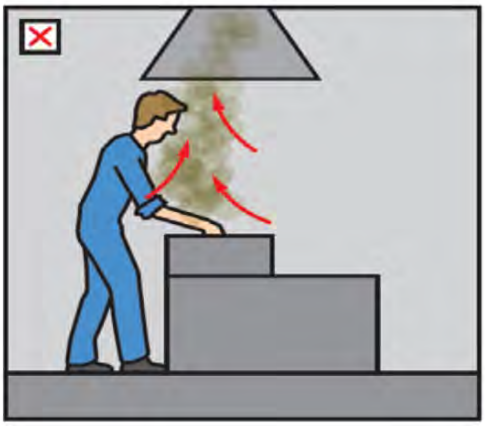


Diagram 5 Poor design carries contaminants through the breathing zone



Design considerations for ventilation systems:

Ventilation is a means of maintaining a safe atmosphere by the introduction or recirculation of air; by natural, forced or mechanical means. Maintaining a safe atmosphere in the storage and handling area of hazardous chemicals is an important control measure. Recirculation should be avoided unless precautions are taken to detect and avoid harmful

contamination, and prevent accumulation of airborne contaminants. Recirculation should only be used where temperature control is required.

A ventilation system should operate exclusively for the particular building, room or space. Where this is not practicable, the system may be linked to another area provided that this does not increase the risk to exposure of hazardous chemicals, for example by recirculating hazardous or flammable vapours or spreading them into other areas where that chemical is not being used.

Ventilation systems should be suitable for the types of hazardous chemicals on the premises. For example, if a hazardous chemical has vapours which are denser than air, these will accumulate in low lying areas. In this case, extraction of vapours should be from the lowest point and fresh air introduced from above.

Exhaust systems and ducting should be resistant to the vapours, mists or dusts being extracted. The risk of fire propagation can be reduced by installing self-closing fire dampers, for example in laboratory fume cupboards. Extraction ducting should not be linked to multiple items of plant if there is any risk of fire spreading through the ducting. Provision against flashback, for example by installing flame arresters, may be necessary.

Exhaust gases and air should be discharged where it will not cause other hazards. For example, fume cupboard extraction systems should not exhaust close to air intakes and should be in compliance with any local building or environment protection requirements. Exhaust systems can also be fitted with means to reduce airborne contaminants which may be harmful to the environment or people prior to discharge to the atmosphere. This might include particulate filters, absorbents and adsorbents (e.g. carbon), catalysts, scrubbers or burners.

Regular checks of these systems should be included in planned maintenance schedules to ensure that vents remain unobstructed.

Mechanical ventilation:

Inlet and outlet vents located on opposite sides of the storage area at low levels provide airflow across the floor. Where both inlet and exhaust are mechanically assisted, capacities and rates should be adjusted to ensure that the pressure inside the store or room never exceeds that outside and airflow into any adjoining work areas and offices is prevented.

Local exhaust ventilation:

Local exhaust ventilation is used to remove airborne contaminants before they reach the breathing zone of workers in the area. It is used for effective control of more highly toxic contaminants created in large quantities and is applied close to the source of generation. It is more effective than increasing general ventilation to try to dilute toxic contaminants.

Natural ventilation:

Natural ventilation can be used to control small amounts of relatively low toxicity contaminants including dusts, fumes, gases and vapours which have low and steady rates of generation. It requires a large building space for dilution and relatively large air flow through open doors, windows or ceiling exits. For solvent storage areas, where heavier than air vapours may accumulate in lower regions (e.g. near floor level) with a subsequent build-up of hazardous concentrations, vents should be provided at a level immediately above any spill containment, on the opposite sides of a room or space, to provide for airflow across the storage or handling area. High level ventilation may be necessary for temperature control (e.g. roof vents to allow the escape of warm air).

Note: Vents in a screen wall may negate any fire protection or vapour barriers.

To ensure the effectiveness of ventilation systems, these should be designed in accordance with appropriate technical standards, and installed and maintained by qualified or experienced persons, such as engineers or occupational hygienists.

Further information on the design of ventilation systems can be found in:

- AS 1940: The storage and handling of flammable and combustible liquids
- AS/NZS 60079.10.1: Explosive atmospheres – Classification of areas – Explosive gas atmospheres [IEC 60079-10-1, Ed 1.0 MOD]
- HSG258 Controlling airborne contaminants at work: A guide to local exhaust ventilation (LEV); 2nd Edition 2011; Health Safety Executive (Great Britain)
- ACGIH Industrial Ventilation: A Manual of Recommended Practice, 25th Edition; American Conference of Governmental Industrial Hygienists.

Administrative controls:

Administrative controls should only be considered when other higher order control measures are not practicable, or to supplement other control measures. For carcinogens, administrative controls should only be used to provide additional protection.

Administrative controls are also relevant for emergencies when other control measures fail, such as for managing spills and leaks and are particularly important for those workers who are required to clean up spills, or who carry out regular cleaning and maintenance work. Examples of administrative controls include:

- Written policies and work procedures (for example safe work method statements).
- Reducing the number of workers exposed to the chemical (for example by performing the task out of normal work hours or by restricting worker access to certain areas).
- Reducing the duration and/or frequency of workers' exposure through specific work procedures (for example, job rotation).
- Reducing quantities of hazardous chemicals through inventory reduction – this may include just in time ordering rather than storing large quantities of hazardous chemicals and prompt disposal of hazardous chemicals that are no longer required.
- Implementing procedures where only staff who are involved in the use, handling, storage or generation of hazardous chemicals are allowed access to high risk areas where there may be a greater risk of exposure.
- Implementing procedures to prevent introduction of ignition sources into hazardous areas.
- Reducing the period of time in which a chemical could escape into the work area (for example, by minimising the time that mixers, reactors or ovens are open to the environment both during and after use).
- Safe work practices, including good housekeeping, including regular cleaning of work areas.
- Changing packaging material to minimise exposure during handling (for example purchasing liquids in ready to use packages instead of decanting from large containers).
- Using vacuuming or wet methods to suppress dust that may be generated during dry sweeping.
- Keeping containers of hazardous chemicals tightly closed when not in use.
- Cleaning up spills immediately.
- Prompt cleaning of residues from empty containers that have held hazardous chemicals.
- Prohibiting eating, drinking and smoking in potentially contaminated areas.
- Providing washing facilities for rinsing off chemicals (e.g. hand washing, safety showers, laundering of clothes).

Training and supervision should always be provided to ensure administrative controls are effectively implemented.

Personal protective equipment (PPE):

Regulation 44: If personal protective equipment (PPE) is to be used at the workplace, the person conducting the business or undertaking must ensure that the equipment is:

- selected to minimise risk to health and safety
- suitable for the nature of the work and any hazard associated with the work
- a suitable size and fit and reasonably comfortable for the person wearing it
- maintained, repaired or replaced so it continues to minimise the risk
- used or worn by the worker, so far as is reasonably practicable.

Regulation 46: A worker must, so far as reasonably able, wear the PPE in accordance with any information, training or reasonable instruction.

In most circumstances, PPE should not be relied on to control risk. It should be used only as a last resort when all other reasonably practicable control measures have been used and the risk has not been eliminated, or as interim protection until higher level controls are implemented. There may also be situations when the use of other controls is not practicable.

PPE includes overalls, aprons, footwear, gloves, chemical resistant glasses, face shields and respirators.

For some high risk activities, such as spray painting, abrasive blasting and some emergency response actions, PPE should always be used to supplement higher level control measures.

The effectiveness of PPE relies heavily on workers following instructions and procedures correctly. If PPE must be used for long periods, if dexterity and clear vision are needed for the task, or if workers have not been adequately trained on how to fit and use PPE properly, workers might avoid using it.

The best way to determine this is to observe workers performing the task. If they discard the PPE or do not use it, this may indicate that it does not fit, is uncomfortable or is a hindrance in the work. You should also observe workers after the task is complete to ensure that the PPE they have used is stored and maintained correctly.

PPE must be suitable for the task being performed. Examples include:

- Choosing appropriate chemical-resistant gloves offering the best resistance to the chemical being used. Some gloves may be resistant to some solvents but not others.
- Using full-face, air-fed respirator rather than a half-face respirator during spray-painting operations to reduce exposure to hazardous chemicals like isocyanates, which can cause skin and respiratory allergic reactions.

4.2 SPECIFIC CONTROL MEASURES:

This section includes information on key control measures that should be considered when managing risks from hazardous chemicals in the workplace. The information provided here is general in nature and aims to provide an understanding of the principles involved in managing the risks.

Information on control of risks may be included on SDS and labels, for example:

Instructions on use	Some products may have defined uses, for example, agricultural and veterinary chemicals, and some consumer chemicals. It may be illegal to use some chemicals contrary to label directions.
Instructions on storage	This may include advice on not to store with certain incompatible materials, or advice on potential hazardous degradation products

	Examples include – storage of acids and bases, or storage instructions to avoid formation of explosive peroxides in ether during extended storage
Personal protective equipment	This may include specific types of personal protective equipment to be used, for example use of nitrile gloves to protect from exposure to chlorinated or hydrocarbon solvents, or a specific type of respiratory protection.

Labels provide precautionary statements such as;

- Use explosion proof electrical equipment.
- Use only outdoors or in a well ventilated area.

Appendix J contains specific information on managing risks in particular situations or for particular types of hazardous chemicals, primarily those that are dangerous goods.

Fire and explosion risks:

Regulation 355: A person conducting a business or undertaking at a workplace must, if there is a possibility of fire or explosion in a hazardous area being caused by ignition source being introduced into the area, ensure the ignition source is not introduced into the area (from outside or within the space).

Section 3.4 of this Code identified the factors that should be considered when assessing risks from fire and explosion. Key control measures for managing these risks include:

- Designing buildings and plant to relieve and redirect pressure and flame in the event that an explosion occurs.
- Installing systems to detect leaks of flammable gases or vapours.
- Using intrinsically safe equipment.
- Ventilation to avoid creation of hazardous atmosphere.
- Substituting flammable materials for ones that are less flammable or combustible.
- Ensuring incompatible materials are separated or segregated.
- Reducing quantities of flammable and combustible materials, including items that contribute to the fire load but that are not hazardous chemicals themselves (example: wooden pallets).
- Eliminating ignition sources from hazardous areas. This may include establishing a hot work permit system (see below).
- Ensuring equipment used in handling hazardous chemicals is maintained in accordance with manufacturer's instructions.
- Good housekeeping to minimise accumulation of combustible dusts.

Hot work is any process involving grinding, welding, brazing, oxy cutting, heat treatment or any other similar process that generates heat or continuous streams of sparks. Undertaking hot work in areas where flammable or combustible chemicals or other materials are present creates a significant risk of fire or explosion. Conducting hot work on containers such as drums, tanks and pipes that have not been properly decontaminated is a common ignition scenario resulting in fatalities. A hot work permit system is a system designed to eliminate or minimise risks from these activities, by controlling when and how hot work is undertaken in these areas.

Further information on hot work permit systems is available in the following Australian Standards:

- AS 1940: The storage and handling of flammable and combustible liquids
- AS/NZS 2865: Safe working in a confined space (in Appendix H of the Standard)

- AS 1674.1: Safety in welding and allied processes – Fire precautions in relation to welding.

Oxidising agents can contribute to fire and explosion risks. In relation to working with oxidising agents, information can be found in AS 4326: The storage and handling of oxidising agents.

Eliminating ignition sources:

Some common ignition sources are included in Table 2 of Section 3.4 of this Code. Ignition sources must be eliminated from any hazardous areas. This may be achieved by:

- Use of intrinsically safe electrical equipment. Consider whether the hazardous chemicals can generate flammable or explosive atmospheres, and ensure that any equipment being used, like stirrers, is intrinsically safe
- Ensuring electrical equipment is effectively maintained. Poorly maintained electrical equipment can present a significant risk for example through worn brushes
- Ensuring electrical equipment is properly earthed
- Implementing administrative controls such as permit systems preventing hot work (for example, welding) in these areas.

Static electricity can be created from a range of activities including the transfer of hazardous chemicals. Information on control of static electricity can be found in AS 1020: The control of undesirable static electricity.

The auto-ignition temperature of the hazardous chemical should be considered as some hazardous chemicals may ignite spontaneously above certain temperatures.

A hazardous area is a three-dimensional space in which a hazardous atmosphere exists. In relation to hazardous chemicals, a hazardous atmosphere is one in which a flammable or combustible substance, such as fuel, is present in combination with air or other sources of oxygen and which would ignite to cause a fire or explosion if an ignition source was introduced. It also includes an atmosphere in which the concentration of oxygen increases the fire risk.

Hazardous areas generally exist around flammable or combustible materials, for example those present in tanks, drums or containers.

Further information on hazardous areas can be obtained from the following Australian Standards:

- AS/NZS 60079.10.1: Explosive atmospheres - Classification of areas - Explosive gas atmospheres (IEC 60079-10-1, Ed.1.0 MOD)
- AS/NZS 60079.10.2: Explosive atmospheres - Classification of areas - Combustible dust atmospheres

Reducing vapour emissions:

Accumulation of vapours creates the potential for a hazardous area to exist. Vapour emissions resulting from transfer can be minimised by:

- The use of enclosed transfer systems and vapour recovery connections.
- Keeping lids open only for the minimum period required for transfer.
- Minimising exposed surface areas.
- Avoidance of splash filling.
- Minimising the temperature of liquids being transferred.
- Providing extraction ventilation for all sources of vapour.

When heated, the vapour pressure of flammable and combustible materials may increase resulting in higher vapour emissions. Containers of hazardous chemicals should therefore be stored away from sources of heat (for example heaters or other heating appliances). Heat may also deteriorate packaging and increase the risk of failure of the container.

Keeping hazardous chemicals stable:

Regulation 356: A person conducting a business or undertaking must ensure, so far as is reasonably practicable that hazardous chemicals do not become unstable, decompose or change so as to create a hazard different to the hazard originally created by the hazardous chemical or significantly increase the risk associated with any hazard in relation to the hazardous chemical.

Some hazardous chemicals are inherently unstable or highly reactive, or they can become unstable under certain conditions during use, often in a deliberate process. This is mainly for hazardous chemicals that are dangerous goods, however other hazardous chemicals may also present a risk if stability is not maintained.

To keep hazardous chemicals stable, you should:

- Follow manufacturer's instructions or instructions on the SDS.
- Maintain specified proportions of ingredients, goods and other components that constitute the hazardous chemicals, for example phlegmatizers, diluents, solvents, wetting agents, desensitisers, inhibitors and/or other adulterants.
- Include a stabilising ingredient where appropriate.
- Keep the hazardous chemicals within any control temperature range where necessary.
- Keep the hazardous chemical and the packaging dry, unless the packages themselves are impervious to moisture.

This does not apply where the hazardous chemicals are about to be used in a manufacturing process.

Some hazardous chemicals may provide an expiry date on the label and SDS. Where a chemical has passed its expiry date it should not be used, but be disposed of in accordance with manufacturer's instructions and local laws.

Impact protection – containers, structures and plant:

To prevent damage from the movement of the structure or plant including any attached pipe work or equipment, you should ensure that structures or plant used for the storage or handling of hazardous chemicals are appropriately located and fixed to stable foundations.

Measures required for preventing or controlling impact normally depends on the nature of risks. Impact protection measures may be necessary for:

- Structures containing large quantities of hazardous chemicals.
- Plant and equipment including storage and process vessels, associated pipe work, pumps and controls.
- Storage areas (including transit storage) for packages, IBCs and associated shelves and racks.
- Exposed parts of the fire protection systems.

The most effective ways to protect containers, pipework, pumps and attachments from impact is to locate the containers away from trafficable areas or prevent vehicle access. Installation of crash protection measures, such as bollards and guardrails is an alternative means of impact protection. These should be designed to absorb the energy of any reasonably foreseeable impact and minimise the likelihood of injury to anyone involved in the incident.

Containing spills:

Regulation 357: A person conducting a business or undertaking at the workplace must ensure, so far as is reasonably practicable that where there is a risk of a spill or leak of a hazardous chemical in a solid or liquid form, provision is made

in each part of the workplace where a hazardous chemical is used, handled, stored or generated for a spill containment system that contains within the workplace any spill or leak of a hazardous chemical and any resulting effluent.

When a spill, leak or accidental release of hazardous chemicals occurs, appropriate actions must be taken to contain the hazardous chemicals within the workplace.

The spill containment system must describe how to contain, cleanup and dispose of the spill or leak and any resulting effluent. The system must not create a hazard by bringing together different hazardous chemicals that are not compatible or that would react together to cause a fire, explosion, harmful reaction or evolution of flammable, toxic or corrosive vapour.

Leaving containers open when not in use is one of the main causes of spills and can also lead to generating hazardous atmospheres and fire risks. Procedures, training and supervision should ensure containers are sealed when not in use.

Any spill containment system should be large enough to ensure that all spills can be held safely until cleaned up. Factors you should consider when designing a spill containment system include:

- The nature of the hazardous chemicals (whether liquid or solid).
- The quantity of the hazardous chemicals.
- The size of the largest container or reasonably foreseeable largest spill.
- The potential impact if the hazardous chemicals escape to the environment.
- Whether it is necessary to provide for the management of firewater at an incident.
- A separate spill containment is provided for incompatible goods.
- The materials used to construct the containment system, as well as any materials used for absorption, are compatible with the hazardous chemicals.
- Other materials in the vicinity that will prevent contamination of groundwater or soil.
- The system's integrity will be maintained in any reasonably foreseeable incident.

For large quantities of hazardous chemicals, bunding may be required. Bunding should be designed and constructed in accordance with the relevant Australian Standard specific to the type of hazardous chemical, for example AS 1940: The storage and handling of flammable and combustible liquids, and in consultation with the emergency services authority.

Transfer of hazardous chemicals:

Transferring hazardous chemicals generally presents a far greater risk than for static storage. During the transfer process, the chemicals will frequently be unconfined at some stage of the transfer process that may include pouring or pumping from one container to another. Common methods for eliminating or reducing risks during transfer operations include:

- Avoiding spillage or overflow, including overflow protection on equipment and receiving vessels.
- Providing emergency shut-offs to limit the amount of hazardous chemicals released during a loss of containment.
- Providing a spill containment system.
- Reducing static electricity and vapour generation. This is particularly important for fire risk hazardous chemicals such as flammable liquids.
- Ensuring transfer fittings are compatible.
- Avoiding sources of ignition.
- Installing flow and pressure regulators on pipe work or pumps.

- Installing interlocking of valves and switches.
- Implementing systems for detecting losses from pipe work and fittings, such as static pressure loss detectors, measurement to determine losses in transfer or external sensors.

Plumbed eye wash stations and safety showers should be installed in areas where workers may be exposed in the event of a spill during transfer operations.

Controlling risks from compressed gases:

Key considerations for safe storage and handling of gas cylinders include:

- Maintaining and regularly checking cylinders, regulators, hoses and pipes to cylinders to ensure that there are no leaks or dents.
- Storing cylinders in an upright position to ensure the safety device functions correctly.
- Securing cylinders to prevent dislodgement.
- Transport cylinders with appropriate equipment such as trolleys or gas cages.
- Keep the cylinder valve closed when the cylinder is not being used.
- Keep all sources of heat and ignition away from gas cylinders, even if the cylinders do not contain flammable material.
- Store cylinders outdoors or in very well ventilated areas.

Gas cylinders should be fitted with a bursting disc safety device and liquid petroleum gas cylinders should have an operational spring-loaded pressure relief valve.

If a small leak occurs, the cylinder valve should be closed if it is safe to do so. Appropriate personal protective equipment should be put on before attempting to locate the leak point. For toxic gases, self-contained breathing apparatus may be required for emergency use. The area should be well ventilated and air conditioning systems should be turned off to avoid spreading gas. However, if a large amount of gas escapes, the area should be evacuated. If it is safe to do so, before evacuating, ventilate the area and remove or isolate ignition sources. Contact the gas supplier for advice, or in an emergency, contact the emergency services authority.

Potential risks associated with the transport and storage of small gas cylinders (e.g. acetylene and LPG) in vehicles must be also managed appropriately.

A range of Australian Standards provide further information relating to controlling risks from compressed and liquefied gases, such as AS/NZS 1596: The storage and handling of LP Gas, and AS 4332: The storage and handling of gases in cylinders.

Asphyxiation hazards:

Key considerations in minimising the risk of asphyxiation include:

- avoiding work being carried out in oxygen-depleted (under 19 per cent) atmospheres - for example this could be done by testing the workplace atmosphere using an approved and intrinsically-safe gas monitor
- keeping the work area well-ventilated, particularly in low-lying areas and roof spaces where gases can accumulate– this could be done by ensuring windows are open where necessary and ventilation and extraction systems are on and are fully functional
- purging
- using an air-supplied respirator, particularly in confined spaces

- checking cylinders, cylinder fittings, hoses and connections to ensure that they are not damaged or in poor condition – this might include checking fittings and hoses for signs of corrosion or degradation or spraying them with a small amount of detergent solution or leak-detection spray and looking for bubble formations which may indicate the presence of a gas leak.

4.3 MAINTAINING CONTROL MEASURES:

Regulation 37: A person conducting a business or undertaking must ensure that the implemented control measures remain effective. This includes checking that the control measures are fit for purpose; suitable for the nature and duration of the work and are installed and used correctly.

Maintenance of control measures may involve the following:

- Regular inspections of control measures.
- Supervision to ensure workers are using the control measures properly.
- Preventative maintenance and testing programs for chemical storage and handling systems.
- Periodic air monitoring to ensure that engineering and administrative controls remain effective.

Maintenance procedures should include mechanisms for workers to report defective control measures as soon as they are identified so that prompt remedial action can be taken.

Preventative maintenance and integrity testing:

Regulation 363: A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that a system used at the workplace for the use, handling or storage of hazardous chemicals is used only for the purpose for which it was designed, manufactured, modified, supplied or installed and is operated, tested, maintained, installed, repaired and decommissioned having regard to the safety or workers and other persons at the workplace.

Systems for the storage and handling of hazardous chemicals generally require on-going maintenance and testing to ensure that they continue to be safe for the intended use and that they maintain their operational integrity. Such systems include, but are not limited to, reaction vessels, chemical transfer lines, pumps, spill bunding and storage tanks, filters etc.

To ensure that the integrity of chemical handling systems is preserved, planned maintenance programmes should be designed and carried out at regular intervals, consistent with manufacturer's instructions or advice provided by other competent persons. If this is not reasonably practicable, inspections and maintenance should be carried out annually.

Examples of preventative maintenance and integrity testing might include:

- Inspection of glass linings on steel or metal alloy reaction vessels to ensure there are no cracks or holes which might allow contact of incompatible materials with the metal vessel.
- Regular checking of bursting (rupture) discs and pressure-relief systems on pressure vessels to ensure they have not "blown" and are of the correct pressure rating for the work being performed. Bursting or rupture discs are safety features of cylinders that prevent damage or injury from over-pressurisation.
- Checking spill bunding walls for cracks or other signs of wear to ensure that, in the event of a spill, the bunding will not leak or fail.
- Checking for signs of corrosion or degradation on tanks, pipework and compressed gas fittings.

If preventative maintenance checks show that the integrity of any chemical handling system is in doubt or not performing as it is intended, repair or replacement of the faulty system should be carried out as soon as practicable and before its next use.

4.4 PROVIDING INFORMATION, TRAINING, INSTRUCTION AND SUPERVISION:

Regulation 39: A person conducting a business or undertaking must ensure that information, training and instruction provided to a worker is 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 379: The person conducting a business or undertaking must also provide any supervision necessary to protect workers from health and safety risks arising from the work at the workplace, if the worker:

- Uses, handles, generates or stores a hazardous chemical.
- Operates, tests, maintains, repairs or decommissions a storage or handling system for a hazardous chemical, or
- Is likely to be exposed to a hazardous chemical.

Information, training, instruction and supervision must be provided not only to workers but to other persons at the workplace such as visitors.

Information, training and instruction should include the following:

- The nature of the hazardous chemicals involved and the risks to the worker.
- The control measures implemented, how to use and maintain them correctly, for example how and when to clean or replace filters on a spray painting booth.
- The arrangements in place to deal with emergencies, including evacuation procedures, containing and cleaning up spills and first aid instructions.
- The selection, use, maintenance and storage of any personal protective equipment (PPE) required to control risks and the limitations of the PPE.
- Any health monitoring which may be required and the worker's rights and obligations.
- The labelling of containers of hazardous chemicals, the information that each part of the label provides and why the information is being provided.
- The availability of SDS for all hazardous chemicals, how to access the SDS, and the information that each part of the SDS provides.
- The work practices and procedures to be followed in the use, handling, processing, storage, transportation, cleaning up and disposal of hazardous chemicals.

Information, training and instruction must be provided in such a way that it is easily understood. The amount of detail and extent of training will depend on the nature of the hazards and the complexity of the work procedures and control measures required to minimise the risks.

Records of training provided to workers should be kept, documenting who was trained, when and on what.

5. MONITORING AND REVIEW:

5.1 HEALTH MONITORING:

Regulation 368: A person conducting a business or undertaking must ensure health monitoring is provided to a worker carrying out work for the business or undertaking if:

- The worker is carrying out ongoing work using, handling generating or storing hazardous chemicals and there is a significant risk to the worker's health because of exposure to a hazardous chemical referred to in Schedule 14, table 14.1

- The person identifies that because of ongoing work carried out by a worker using, handling generating or storing hazardous chemicals there is a significant risk that the worker will be exposed to a hazardous chemical (other than a hazardous chemical referred to in Schedule 14, Table 14.1) and either valid techniques are available to detect the effect on the worker's health or a valid way of determining biological exposure to the hazardous chemical is available and it is uncertain, on reasonable grounds whether the exposure to the hazardous chemical has resulted in the biological exposure standard being exceeded.

Health monitoring of a person means monitoring the person to identify changes in the person's health status because of exposure to certain substances. It involves the collection of data in order to evaluate the effects of exposure and to confirm that the absorbed dose is within safe levels. This allows decisions to be made about implementing ways to eliminate or minimise the worker's risk of exposure, for example, reassigning to other duties that involve less exposure or improving control measures.

Schedule 14, Table 14.1 (reproduced at Appendix E of this Code) includes the type of health monitoring that must be carried out for each hazardous chemical listed, unless:

- An equal or better type of health monitoring is available.
- The use of that other type of monitoring is recommended by a registered medical practitioner with experience in health monitoring.

Health monitoring is not an alternative to implementing control measures. If the results indicate that a worker is experiencing adverse health effects or signs of exposure to a hazardous chemical, the control measure must be reviewed and if necessary revised.

A person conducting a business or undertaking must:

- Inform workers and prospective workers about health monitoring requirements.
- Ensure health monitoring is carried out by or under the supervision of a registered medical practitioner with experience in health monitoring.
- Consult workers in relation to the selection of the registered medical practitioner.
- Pay all expenses relating to health monitoring.
- Provide certain information about a worker to the registered medical practitioner.
- Take all reasonable steps to obtain a report from the registered medical practitioner as soon as practicable after the monitoring has been carried out.
- Provide a copy of the report to the worker and the regulator if the report contains adverse test result or recommendations that remedial measures should be taken. Also provide the report to all other persons conducting a business or undertaking who have a duty to provide health monitoring for the worker.
- Keep reports as confidential records for at least 30 years after the record is made (40 years for reports relating to asbestos exposure).
- Not disclose the report to anyone without the worker's written consent unless required under the WHS Regulations.

Further information on health monitoring can be found in the Health Monitoring Guides.

5.2 REVIEWING CONTROL MEASURES:

Regulation 38: A duty holder must review and, as necessary, revise control measures implemented so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health or safety.

Regulation 352: The person must also ensure that any measures implemented to control risks in relation to a hazardous chemical at the workplace are reviewed and as necessary revised.

Control measures must be reviewed (and revised if necessary) in the following circumstances:

- The control measure does not control the risk it was implemented to control so far as is reasonably practicable
- Before a change at the workplace that may create new or different risks that the control measure cannot Effectively control
- A new relevant hazard or risk is identified.
- The results of consultation indicate that a review is necessary.
- A health and safety representative requests a review if that person reasonably believes that:
    - a circumstance in any of the above points affects or may affect the group represented by the health and safety representative; and
    - the control measure has not been adequately reviewed in response to the circumstance.
- If an SDS or register of hazardous chemicals is changed.
- If a health monitoring report for a worker contains:
    - test results that the worker has been exposed to a hazardous chemical and has an elevated level of the chemical or metabolites for that hazardous chemical in their body;
    - any advice that test results indicate the worker may have contracted a disease, injury or illness as a result of carrying out the work that triggered the need for health monitoring; and
    - any recommendation that remedial measures be taken, including whether the worker can continue to carry out the type of work that triggered the requirement for health monitoring.
- If atmospheric monitoring indicates that the airborne concentration of a hazardous chemical at the workplace exceeds the relevant exposure standard.
- At least once every 5 years.

A change at the workplace includes:

- A change to the workplace itself or any aspect of the work environment.
- A change to a system of work, a process or a procedure.

When reviewing the control measures, consultation must occur with workers and their health and safety representatives. The following questions should be considered when undertaking the review:

- Are the control measures working effectively in both their design and operation?
- Have the control measures introduced new problems?
- Have all hazards been identified?
- Have new work methods, new equipment or chemicals made the job safer?
- Are safety procedures being followed?
- Has instruction and training provided to workers on how to work safely been successful?
- Are workers actively involved in identifying hazards and possible control measures? Are they openly raising health and safety concerns and reporting problems promptly?
- Are the frequency and severity of health and safety incidents reducing over time?

- If new legislation or new information becomes available, does it indicate current controls may no longer be the most effective?

6. EMERGENCY PREPAREDNESS:

Regardless of controls put in place to prevent incidents occurring in your workplace, they can still occur. For example, people can be exposed to chemicals and require immediate medical treatment, a fire can start or a loss of containment can occur. It is therefore necessary to be prepared for any foreseeable incident.

6.1 EMERGENCY PLAN:

Regulation 43: A person conducting a business or undertaking must prepare an effective emergency plan for the workplace.

Regulation 361: An emergency plan must be prepared and provided to the emergency services organisation if the quantity of Schedule 11 hazardous chemicals used, handled or stored at a workplace exceeds the manifest quantity for that hazardous chemical. The person must revise the plan in accordance with any recommendations the primary emergency services organisation provides about its effectiveness.

The purpose of the emergency plan is to plan for, and thus minimise the effects of any dangerous occurrence or near miss at a workplace resulting from handling of hazardous chemicals.

When developing an emergency plan, consideration must be had to the following factors:

- The nature of the work being carried out at the workplace.
- The nature of the hazards at the workplace.
- The size and location of the workplace.
- The number of workers and other persons at the workplace.

For workplaces that use, store or handle large quantities of hazardous chemicals, providing a copy of emergency plans and details of actions to be taken in the event of an alarm or emergency situation to neighbouring sites may assist coordinating responses in the event of an emergency.

Additional information regarding emergency management associated with the storage and handling of flammable hazardous chemicals is available in AS 1940: The storage and handling of flammable and combustible liquids.

Content of emergency plan:

The emergency plan must provide for:

- Emergency procedures that include:
  - an effective response to an emergency;
  - evacuation procedures;
  - notification procedures to advise emergency services organisations at the earliest convenience;
  - medical treatment and assistance; and
  - communication procedures between the person coordinating the emergency response and all persons at the workplace
- The testing procedures and how often this will be done.
- How relevant workers will be provided with information, training and instruction about implementing the emergency procedures.

A comprehensive emergency plan should also include:

- A site map that indicates where hazardous chemicals are stored.
- Responsibilities of key persons in managing emergencies.
- Circumstances to activate the plan.
- Systems for raising the alarm.
- Estimating the extent of the emergency.
- Alerting emergency services organisation to the emergency or if it has the potential to become a dangerous occurrence.
- Procedures that account for all people at the workplace.
- Isolation of the emergency area to prevent entry by non-essential personnel.
- Roles of on-site emergency response teams (including First Aid Officers, Emergency Wardens).
- Containment of any spillage.
- The requirement for fire-water retention to ensure that contaminated fire-water cannot enter waterways, drains or ground water.
- Disconnection of power supplies and other energy sources except when required to maintain safety of a critical operation or to run emergency equipment such as fire booster pumps.
- Prevention of hazardous chemicals or contaminated material of any kind from entering drains or waterways.
- Provision of relevant information and assistance to the emergency services authority, both in anticipation of emergencies and when they occur.
- Maintenance of site security throughout the emergency.
- Provision for dealing with the public and the press.
- Site rehabilitation requirements.

Emergency procedures:

The extent of emergency procedures required will depend on the size and complexity of the workplace, types and quantities of hazardous chemicals and the processes involved when the goods are in use. As a minimum, emergency procedures should include instructions on:

- How to raise the alarm, including how to contact the appropriate emergency services organisation.
- Any actions to be taken by workers in an emergency to ensure the safety and health of all persons at the workplace to minimise risks, damage to property as well as the environment.
- Any actions to be taken by prescribed persons such as fire wardens, for example how to evacuate the workplace or use fire extinguishers.

To be effective, workers need to be appropriately trained, and any procedures tested. Workers should be consulted and ideally directly involved in the development of emergency procedures.

An example of an effective emergency procedure is a simple one-page document; in point form, suitable for display on signs or to be carried by workers or visitors as a pocket card, detailing evacuation procedures, assembly areas, identifying first aid officers and emergency wardens at the workplace, contact numbers of emergency services organisations (such as fire brigade, police, ambulance, local hospital and regulatory authorities).

Consultation and communication:

The emergency plan must be developed in consultation with your workers, the emergency services organisation and neighbouring premises. The emergency services organisation should also be consulted when developing and designing fire protection systems used in the workplace.

Off-site considerations:

Where any foreseeable incident may have effects beyond the boundary of the workplace, the emergency plan should also address managing the off-site effects. Where off-site effects are a possibility, the plan should contain information on necessary warnings or communications with neighbouring premises.

Where the emergency plan includes activities that involve persons who reside or work adjacent to the workplace, the relevant parts of the plan should be communicated to those persons.

Implementation and testing:

The emergency plan should be tested when first devised and after each modification. Throughout the year, at suitable intervals, practice drills and simulated emergencies should be undertaken and involve all workers and the emergency services authority. These drills should be focussed on familiarising anyone who would be involved in an accident related to the storage and handling of hazardous chemicals with the workplace procedures.

Reviewing the emergency plan:

The emergency plan should be reviewed:

- Within five years of its development.
- In intervals of no more than five years.
- If there is a change of risk at or in the proximity of the workplace.
- When updated information becomes available.
- A possible deficiency is identified, for example through regular testing.

Emergency plans should be readily available in hard copy form at all times. The location of the emergency plan should be easily located by all workers and should be discussed with the emergency services organisation when it is updated or reviewed.

6.2 EMERGENCY EQUIPMENT AND SAFETY EQUIPMENT:

Regulation 360 and Regulation 362: A person conducting a business or undertaking at a workplace that uses, handles, generates or stores hazardous chemicals must ensure that equipment is always available at the workplace for use in an emergency.

The type of emergency equipment required to respond to an emergency, contain and clean up spills and assist workers in conducting emergency procedures safely will vary depending on the type and quantities of hazardous chemicals at the workplace.

Equipment must be located so it is readily accessible for all workers if an emergency arises. If safety equipment is needed to respond in an emergency, you must ensure that it is provided, maintained and readily accessible at the workplace. Safety equipment for use with hazardous chemicals should be compatible with the hazardous chemicals they may come in contact with. For example, water fire extinguishers must not be used on oil fires.

Examples of emergency equipment that may be required in your workplace include:

- Over packs such as oversized drums for containing leaking containers.
- Absorbent material suitable for the chemical likely to be spilled.
- Booms, plates and/or flexible sheeting for preventing spillage from entering drains and waterways.

- Fire extinguishers.
- Neutralising agents such as lime and soda ash.
- Suitable pumps and hoses for removing spilled material.
- First aid kits (including antidotes for specific chemical exposures such as cyanide).
- Emergency showers and eye wash stations.
- Hand tools such as mops, buckets, squeegees and bins.
- Suitable protective clothing and equipment to protect the safety and health of personnel involved in the clean-up.

6.3 FIRE PROTECTION SYSTEMS:

Regulation 359: A person conducting a business or undertaking at a workplace must ensure that fire protection and fire fighting equipment:

- Is designed and built for the types of hazardous chemicals at the workplace in quantities in which they are used, handled, generated or stored at the workplace.
- The conditions under which they are used, handled, generated or stored.
- Is compatible with fire fighting equipment used by primary emergency services organisations.
- Is properly installed, tested and maintained.
- Latest testing date is recorded and test results kept until the next test is conducted.

Where large quantities of hazardous chemicals are used, handled, generated or stored in your workplace simple fire extinguishers may not be sufficient to deal with a fire. In these cases you need to consider installing a fire protection system that is designed for the types and quantities of hazardous chemicals used, handled, generated or stored in your workplace.

When installing a fire protection system you must have regard to:

- The fire load of the hazardous chemicals and other sources.
- The compatibility of the hazardous chemicals with other substances or mixtures.
- The compatibility of the equipment with equipment used by the primary emergency services organisation.

You should also consider the proximity of the workplace in relation to other workplaces or premises and any requirements under the Building Code of Australia.

The fire protection system should have the capacity to quickly control and extinguish any fire that occurs involving the hazardous chemicals. It should also effectively protect the hazardous chemicals stored within the workplace from any fire in adjacent properties.

If at any stage the fire protection or firefighting equipment becomes ineffective or inoperable, you must assess the implications of having an unserviceable or inoperative system and must control the risk with alternative measures. In these circumstances you should make sure that alternative arrangements are made immediately. If alternative resources cannot be obtained to provide the required level of protection, it may be necessary to cease operating until effective fire protection can be restored. You must ensure that the fire protection and firefighting equipment are returned to full operation as soon as possible.

6.4 MONITORS AND ALARMS:

Monitors and alarms can be critical to controlling an emergency situation as they allow the emergency or dangerous situation to be identified early and response actions initiated quickly. Effective alarm systems should:

- Activate automatically and be capable of being operated manually through the use of clearly identified alarm activators at convenient and safe locations, which are easily accessible to work areas.
- Utilise alarm signals that are distinguishable from any other signal and are clearly audible throughout the premises.
- Contain a visual component (for example, flashing lights) in situations where there are high noise levels or the use of protective clothing may prevent the recognition of an alarm signal.
- Remain operable if the main power supply fails.

Monitors and alarms should be installed in accordance with manufacturers' specifications. Fire alarms should be installed where fire control may require the direction of large quantities of firewater (or equivalent) at a fixed installation, with minimum exposure to risks for fire fighters. Where large quantities of hazardous chemicals are involved, it is recommended that this be done in consultation with the relevant emergency services authority.

To ensure that monitors and alarms remain effective, they should be tested regularly.

6.5 AUTOMATIC SPRINKLER SYSTEMS:

Depending on the level of risk you may choose to install an automatic sprinkler system. Automatic sprinkler systems may allow the fire to be controlled almost immediately after it starts. However they may not be suitable in all workplaces, for example where use of water as the extinguishing agent is not appropriate because of the presence of chemicals that react with water. Automatic sprinkler systems may comprise:

- Individual-actuation sprinklers.
- Deluge sprinklers.
- Foam sprinklers.
- A combination of any of the above.

6.6 WATER SUPPLY:

A reliable water supply is required to ensure that the protection system remains operable in case of an Emergency. The supply should be sufficient to supply both the internal fire protection equipment and additional equipment, used by the emergency services organisation controlling a fire at the premises.

Where sufficient supply is not available from the main water supply, it may be necessary to supplement this with additional water storage and/or pumps. If the local authorities permit it, water may be obtained from reliable alternative sources such as close by rivers and dams, using whatever resources are suitable.

The emergency services organisation that is attending a fire at the workplace should be requested to conduct regular checks on the adequacy of the local water supply and pressure within the workplace.

APPENDIX A – THE MEANING OF KEY TERMS:

ADG Code means the Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th edition, approved by the Australian Transport Council. The ADG Code is accessible at the National Transport Commission website: www.ntc.gov.au

Article means a manufactured item, other than a fluid or particle, that is formed into a particular shape or design during manufacture and has hazard properties and a function that are wholly or partly dependent on the shape or design.

Biological monitoring means the measurement and evaluation of a substance, or its metabolites, in the body tissue, fluids or exhaled air of a person exposed to that substance or blood lead level monitoring.

Class of dangerous goods, means the number assigned to the goods in the ADG Code indicating the hazard, or most predominant hazard, exhibited by the goods.

Combustible substance means a substance that is combustible and includes dust, fibres, fumes, mists or vapours produced by the substance.

Container means anything in or by which a hazardous chemical is, or has been, wholly or partly covered, enclosed or packed, including anything necessary for the container to perform its function as a container.

Correct classification means the set of hazard classes and hazard categories assigned to a hazardous chemical when it is correctly classified. Note: Part 1 of Schedule 9 sets out when a hazardous chemical is correctly classified.

Division of dangerous goods, means a number, in a class of dangerous goods, to which the dangerous goods are assigned in the ADG Code.

Exposure standard represents the airborne concentration of a particular substance or mixture that must not be exceeded. The exposure standard can be of three forms:

- 8-hour time-weighted average
- peak limitation
- short term exposure limit.

Flash point means the lowest temperature (corrected to a standard pressure of 101.3 kPa) at which the application of an ignition source causes the vapours of a liquid to ignite under specified test conditions.

GHS means the 'Globally Harmonized System of Classification and Labelling of Chemicals, 3rd Revised Edition', published by the United Nations as modified under Schedule 6 of the WHS Regulations.

Hazard means a situation or thing that has the potential to harm people, property or the environment. The GHS covers physicochemical, health and environmental hazards for hazardous chemicals.

Hazard category means a division of criteria within a hazard class in the GHS.

Hazard class means the nature of a physical, health or environmental hazard under the GHS. Note: This includes dangerous goods.

Hazard pictogram means a graphical composition**,** including a symbol plus other graphical elements, that is assigned in the GHS to a hazard class or hazard category.

Hazard statement means a statement assigned in the GHS to a hazard class or hazard category describing the nature of the hazards of a hazardous chemical including, if appropriate, the degree of hazard.

Hazardous chemical means a substance, mixture or article that satisfies the criteria for a hazard class in the GHS (including a classification referred to in Schedule 6 of the WHS Regulations), but does not include a substance, mixture or article that satisfies the criteria solely for one of the following hazard classes:

(a) acute toxicity—oral—Category 5;

(b) acute toxicity—dermal—Category 5;

(c) acute toxicity—inhalation—Category 5;

(d) skin corrosion/irritation—Category 3;

(e) serious eye damage/eye irritation— Category 2B;

(f) aspiration hazard—Category 2;

(g) flammable gas—Category 2;

(h) acute hazard to the aquatic environment—Category 1, 2 or 3;

(i) chronic hazard to the aquatic environment—Category 1, 2, 3 or 4;

(j) hazardous to the ozone layer.

Note: The Schedule 6 tables replace some tables in the GHS.

Hazchem Code means 'Hazchem Code' under the ADG Code. Also known as the Emergency Action Code.

Label means written, printed or graphical information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the container of a hazardous chemical.

Manufacture includes the activities of packing, repacking, formulating, blending, mixing, making, remaking and synthesizing of the chemical.

Mixture means a combination of, or a solution composed of, two or more substances that do not react with each other.

Placard means a sign or notice:

a) Displayed or intended for display in a prominent place, or next to a container or storage area for hazardous chemicals at a workplace.

b) That contains information about the hazardous chemical stored in the container or storage area.

Placard quantity means the quantity referred to in Schedule 11 of the WHS Regulations, Table 11.1, column 4 for that hazardous chemical. Note: This schedule has been replicated in Appendix D of this Code.

Precautionary Statement means a phrase prescribed by the GHS that describes measures that are recommended to be taken to prevent or minimise the adverse effects of exposure to a hazardous chemical or the improper handling of a hazardous chemical.

Substance means a chemical element or compound in its natural state or obtained or generated by a process:

- Including any additive necessary to preserve the stability of the element or compound and any impurities deriving from the process.
- Excluding any solvent that may be separated without affecting the stability of the element or compound, or changing its composition.

Supply includes selling or transferring ownership or responsibility for a chemical.

APPENDIX B – COMPARISON OF HAZARD CLASSES AND CATEGORIES UNDER THE ADG CODE AND THE GHS:

ADG class/category, packing group	Equivalent GHS class and category as classified under the WHS Regulations
Class 1 Explosives Unstable explosives (Goods too dangerous to be transported) Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.5 Division 1.6	Unstable explosives Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.5 Division 1.6
Class 2 Gases	Gases under pressure NOTE: The GHS has 4 categories which correspond to the transport condition under the ADG Code. They are: • Gas under pressure – Compressed gas • Gas under pressure – Liquefied gas • Gas under pressure – Refrigerated liquefied gas • Gas under pressure – Dissolved gas
Division 2.1	Flammable gases Category 1 Flammable aerosols Category 1 and 2
Division 2.2	Oxidising gases Category 1 Gases under pressure not otherwise specified
Division 2.3	Acute toxicity: Inhalation Categories 1-4 (Note: category 4 only up to LC_{50} of 5000 ppmV) Skin corrosion / irritation Categories 1A-C
Class 3 PG I	Flammable liquids Category 1
Class 3 PG II	Flammable liquids Category 2
Class 3 PG III	Flammable liquids Category 3
Division 4.1 Self Reactive substances Types A-G [1]	Self-reactive substances Type A-F Type G are not classified under WHS Regulations as hazardous chemicals.

ADG class / category, packing group	Equivalent GHS class and category as classified under the WHS Regulations
Division 4.1 PG II	Flammable solids Category 1
Division 4.1 PG III	Flammable solids Category 2
Division 4.2 PG 1	Pyrophoric liquids Category 1 Pyrophoric solids Category 1
Division 4.2 PG II	Self heating substances Category 1
Division 4.2 PG III	Self heating substances Category 2
Division 4.3 PG I	Substances and mixtures which in contact with water emit flammable gases, Category 1
Division 4.3 PG II	Substances and mixtures which in contact with water emit flammable gases, Category 2
Division 4.3 PG III	Substances and mixtures which in contact with water emit flammable gases, Category 3
Division 5.1 PG I	Oxidising solids, oxidising liquids, Category 1
Division 5.1 PG II	Oxidising solids, oxidising liquids, Category 2
Division 5.1 PG III	Oxidising solids, oxidising liquids, Category 3
Division 5.2 Organic Peroxides Types A-G [1]	Organic peroxides Type A-F. Type G are not classified under WHS Regulations as hazardous chemicals.
Division 6.1 PG I	Acute toxicity: Oral Category 1 Acute toxicity: Dermal Category 1 Acute toxicity: Inhalation Category 1 (dusts, mists, vapours)
Division 6.1 PG II	Acute toxicity: Oral Category 2 Acute toxicity: Dermal Category 2 Acute toxicity: Inhalation Category 2 (dusts, mists, vapours)
Division 6.1 PG III	Acute toxicity: Oral Category 3 Acute toxicity: Dermal Category 3 Acute toxicity: Inhalation Category 3 (dusts, mists, vapours)

ADG class / category, packing group	Equivalent GHS class and category as classified under the WHS Regulations
Division 6.2	No equivalent GHS class and not classified under WHS Regulations as hazardous chemicals.
Division 7	No equivalent GHS class and not classified under WHS Regulations as hazardous chemicals.
Class 8 PG I	Skin corrosion Category 1A
Class 8 PG II	Skin corrosion Category 1B
Class 8 PG III	Skin corrosion Category 1C Corrosive to metals Category 1
Class 9 [2]	Class 9 dangerous goods are not classified under the WHS Regulations.
Goods too dangerous to be transported	Self reactive substances Type A [1] Organic peroxides Type A [1] Unstable explosives
C1 combustible liquids (flash point 60-150°C)	Flammable liquids Category 4 (flash point 60-93°C)

[1] Depending on packing method, self reactive substances and organic peroxides Type A will either be classified under the ADG Code as 'Goods too dangerous to be transported' or their comparative Divisions (4.1 or 5.2).

[2] Class 9 dangerous goods include ecotoxicological hazard classes and categories, and are not mandatory under WHS Regulations. They may be used to supplement the GHS classification of a substance or a mixture or to comply with other environmental legislation.

APPENDIX C – PROHIBITED CARCINOGENS, RESTRICTED CARCINOGENS AND RESTRICTED HAZARDOUS CHEMICALS:

The table below shows prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals, as specified in the WHS Regulations (Schedule 10) and Regulations 340 and 380–384.

The prohibition of the use of carcinogens listed in Table C.1, column 2 and the restriction of the use of carcinogens listed in Table C.2, column 2 apply to the pure substance and where the substance is present in a mixture at a concentration greater than 0•1%, unless otherwise specified.

Table C.1 Prohibited carcinogens

Column 1 Item	Column 2 Prohibited carcinogen [CAS number]
1	2-Acetylaminofluorene [53-96-3]
2	Aflatoxins
3	4-Aminodiphenyl [92-67-1]
4	Benzidine [92-87-5] and its salts (including benzidine dihydrochloride [531-85-1])
5	bis(Chloromethyl) ether [542-88-1]
6	Chloromethyl methyl ether [107-30-2] (technical grade which contains bis(chloromethyl) ether)
7	4-Dimethylaminoazobenzene [60-11-7] (Dimethyl Yellow)
8	2-Naphthylamine [91-59-8] and its salts
9	4-Nitrodiphenyl [92-93-3]

Table C.2 Restricted carcinogens

Column 1 Item	Column 2 Restricted carcinogen [CAS Number]	Column 3 Restricted use
1	Acrylonitrile [107-13-1]	All
2	Benzene [71-43-2]	• All uses involving benzene as a feedstock containing more than 50% of benzene by volume Genuine research or analysis
3	Cyclophosphamide [50-18-0]	• When used in preparation for therapeutic use in hospitals and oncological treatment facilities, and in manufacturing operations Genuine research or analysis

Column 1 Item	Column 2 Restricted carcinogen [CAS Number]	Column 3 Restricted use
4	3,3'-Dichlorobenzidine [91-94-1] and its salts (including 3,3'-Dichlorobenzidine dihydrochloride [612-83-9])	All
5	Diethyl sulfate [64-67-5]	All
6	Dimethyl sulfate [77-78-1]	All
7	Ethylene dibromide [106-93-4]	• When used as a fumigant Genuine research or analysis
8	4,4'-Methylene bis(2-chloroaniline) [101-14-4] MOCA	All
9	3-Propiolactone [57-57-8] (Beta-propiolactone)	All
10	o-Toluidine [95-53-4] and o-Toluidine hydrochloride [636-21-5]	All
11	Vinyl chloride monomer [75-01-4]	All

Table C.3 Restricted hazardous chemicals

Column 1 Item	Column 2 Restricted hazardous chemical	Column 3 Restricted use
1	Antimony and its compounds	For abrasive blasting at a concentration of greater than 0·1% as antimony
2	Arsenic and its compounds	• For abrasive blasting at a concentration of greater than 0·1% as arsenic For spray painting
3	Benzene (benzol), if the substance contains more than 1% by volume	For spray painting
4	Beryllium and its compounds	For abrasive blasting at a concentration of greater than 0·1% as beryllium
5	Cadmium and its compounds	For abrasive blasting at a concentration of greater than 0·1% as cadmium

Column 1 Item	Column 2 Restricted hazardous chemical	Column 3 Restricted use
6	Carbon disulphide (carbon bisulphide)	For spray painting
7	Chromate	For wet abrasive blasting
8	Chromium and its compounds	For abrasive blasting at a concentration of greater than 0·5% (except as specified for wet blasting) as chromium
9	Cobalt and its compounds	For abrasive blasting at a concentration of greater than 0·1% as cobalt
10	Free silica (crystalline silicon dioxide)	• For abrasive blasting at a concentration of greater than 0·1% For spray painting
11	Lead and compounds	• For abrasive blasting at a concentration of greater than 0·1% as lead or which would expose the operator to levels in excess of those set in the regulations covering lead
12	Lead carbonate	• For spray painting
13	Methanol (methyl alcohol), if the substance contains more than 1% by volume	• For spray painting
14	Nickel and its compounds	• For abrasive blasting at a concentration of greater than 0·1% as nickel
15	Nitrates	• For wet abrasive blasting
16	Nitrites	• For wet abrasive blasting
17	Radioactive substance of any kind where the level of radiation exceeds 1 Bq/g	• For abrasive blasting, so far as is reasonably practicable
18	Tetrachloroethane	• For spray painting
19	Tetrachloromethane (carbon tetrachloride)	• For spray painting
20	Tin and its compounds	• For abrasive blasting at a concentration of greater than 0·1% as tin
21	Tributyl tin	• For spray painting

Note: Regulation 382 deals with polychlorinated biphenyls (PCBs).

APPENDIX D – PLACARD AND MANIFEST QUANTITIES:

The table below shows placard and manifest quantities of hazardous chemicals, as specified in the WHS Regulations (Schedule 11). The final column of this table shows the link between the GHS classes and categories and the equivalent classes and categories of dangerous goods under the ADG Code.

Note: Where the WHS Regulations (Schedule 13) require a placard, the relevant dangerous goods class label (pictogram) must be displayed on the placard, rather than the corresponding GHS pictogram.

Column 1	Column 2	Column 3	Column 4	Column 5	ADG Code Classification
Item	Description of hazardous chemical		Placard quantity	Manifest quantity	
	Hazard Class	Hazard Category			
1	Flammable gases	Category 1	200L	5000L	2.1
2	Gases under pressure	with acute toxicity, categories 1, 2, 3 or 4 Note—Category 4 only up to LC_{50} of 5000 ppmV	50L	500L	2.3
3		with skin corrosion categories 1A, 1B or 1C	50L	500L	2.3
4		aerosols	5000L	10 000L	2.1 or 2.2
5		not specified elsewhere in this Table	1000L	10 000L	2.2
6	Flammable liquids	Category 1	50L	500L	3 (PG I)
7		Category 2	250L	2500L	3 (PG II)
8		Category 3	1000L	10 000L	3 (PG III)
9		Any mix of chemicals from Items 6 – 8 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000L	10 000L	
10		Category 4	10 000L	100 000L	Note 3
11	Self-reactive substances	Type A	5kg or 5L	50kg or 50L	GTDTBT – *Note 4*
12		Type B	50kg or 50L	500kg or 500L	4.1 (Type B)

Column 1	Column 2	Column 3	Column 4	Column 5	ADG Code Classification
Item	Description of hazardous chemical		Placard quantity	Manifest quantity	
	Hazard Class	Hazard Category			
13		Type C-F	250kg or 250L	2500kg or 2500L	4.1 (Type C-F)
14	Flammable solids	Category 1	250kg	2500kg	4.1 (PG II)
15		Category 2	1000kg	10 000kg	4.1 (PG III)
16		Any mix of chemicals from Items 12 - 15 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000kg or 1000L	10 000kg or 10 000L	
17	Pyrophoric liquids and Pyrophoric solids	Category 1	50kg or 50L	500kg or 500L	4.2 (PG I)
18	Self heating substances and mixtures	Category 1	250kg or 250L	2500kg or 2500L	4.2 (PG II)
19		Category 2	1000kg or 1000L	10 000kg or 10 000L	4.2 (PG III)
20		Any mix of chemicals from Items 17 - 19 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000kg or 1000L	10 000kg or 10 000L	
21	Substances which in contact with water emit flammable gas	Category 1	50kg or 50L	500kg or 500L	4.3 (PG I)
22		Category 2	250kg or 250L	2500kg or 2500L	4.3 (PG II)
23		Category 3	1000kg or 1000L	10 000kg or 10 000L	4.3 (PG III)
24		Any mix of chemicals from Items 21 - 23	1000kg or 1000L	10 000kg or 10 000L	

Column 1	Column 2	Column 3	Column 4	Column 5	ADG Code Classification
Item	Description of hazardous chemical		Placard quantity	Manifest quantity	
	Hazard Class	Hazard Category			
		where none of the items exceeds the quantities in columns 4 or 5 on their own			
25	Oxidising liquids and Oxidising solids	Category 1	50kg or 50L	500kg or 500L	5.1 (PG I)
26		Category 2	250kg or 250L	2500kg or 2500L	5.1 (PG II)
27		Category 3	1000kg or 1000L	10 000kg or 10 000L	5.1 (PG III)
28		Any mix of chemicals from Items 25 - 27 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000kg or 1000L	10 000kg or 10 000L	
29	Organic peroxides	Type A	5kg or 5L	50kg or 50L	GTDTBT – *Note 4*
30		Type B	50kg or 50L	500kg or 500L	5.2 (Type B)
31		Type C - F	250kg or 250L	2500kg or 2500L	5.2 (Type C-F)
32		Any mix of chemicals from Items 30 and 31 where none of the items exceeds the quantities in columns 4 or 5 on their own	250kg or 250L	2500kg or 2500L	
33	Acute Toxicity	Category 1	50kg or 50L	500kg or 500L	6.1 (PG I) – Note 5
34		Category 2	250kg or 250L	2500kg or 2500L	6.1 (PG II)

Column 1	Column 2	Column 3	Column 4	Column 5	ADG Code Classification
Item	Description of hazardous chemical		Placard quantity	Manifest quantity	
	Hazard Class	Hazard Category			
35		Category 3	1000kg or 1000L	10 000kg or 10 000L	6.1 (PG III)
36		Any mix of chemicals from Items 33 - 35 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000kg or 1000L	10 000kg or 10 000L	
37	Skin corrosion	Category 1A	50kg or 50L	500kg or 500L	8 (PG I)
38		Category 1B	250kg or 250L	2500kg or 2500L	8 (PG II)
39		Category 1C	1000kg or 1000L	10 000kg or 10 000L	8 (PG III)
40	Corrosive to metals	Category 1	1000kg or 1000L	10 000kg or 10 000L	8 (PG III)
41		Any mix of chemicals from Items 37 - 40 where none of the items exceeds the quantities in columns 4 or 5 on their own	1000kg or 1000L	10 000kg or 10 000L	
42	Unstable explosives		5kg or 5L	50kg or 50L	GTDTBT – *Note 4*
43		Any mix of chemicals from Items 11, 29 and 42 where none of the items exceeds the quantities in columns 4 or 5 on their own	5kg or 5L	50kg or 50L	

(1) For the purposes of this table, if a flammable liquid Category 4 is used, handled or stored in the same spill compound as one or more flammable liquids of categories 1, 2 or 3, the total quantity of flammable liquids categories 1, 2 or 3

must be determined as if the flammable liquid Category 4 had the same classification as the flammable liquid in the spill compound with the lowest flash point.

Example: For placard and manifest purposes, a spill compound containing 1000L of flammable liquid category 1 and 1000L of flammable liquid Category 4 is considered to contain 2000L of flammable liquid category 1.

(2) For the item 2 in the table, Gases under pressure with acute toxicity category 4 only applies up to a LC_{50} of 5000 ppmV. This is equivalent to Division 2.3 dangerous goods under the ADG Code.

(3) Only flammable liquids with a flash point of up to 93°C are classified as hazardous chemicals under the WHS Regulations and the GHS. C1 combustible liquids with flashpoints between 93°C and 150°C are not classified as hazardous workplace chemicals.

(4) GTDTBT means goods too dangerous to be transported.

(5) Division 2.3 under the ADG Code includes gases and vapours classified as acutely toxic (categories 1, 2 and 3) and gases which are corrosive to skin (Category 1).

APPENDIX E – REQUIREMENTS FOR HEALTH MONITORING:

The table below shows the requirements for health monitoring, as specified in the WHS Regulations (Schedule 14).

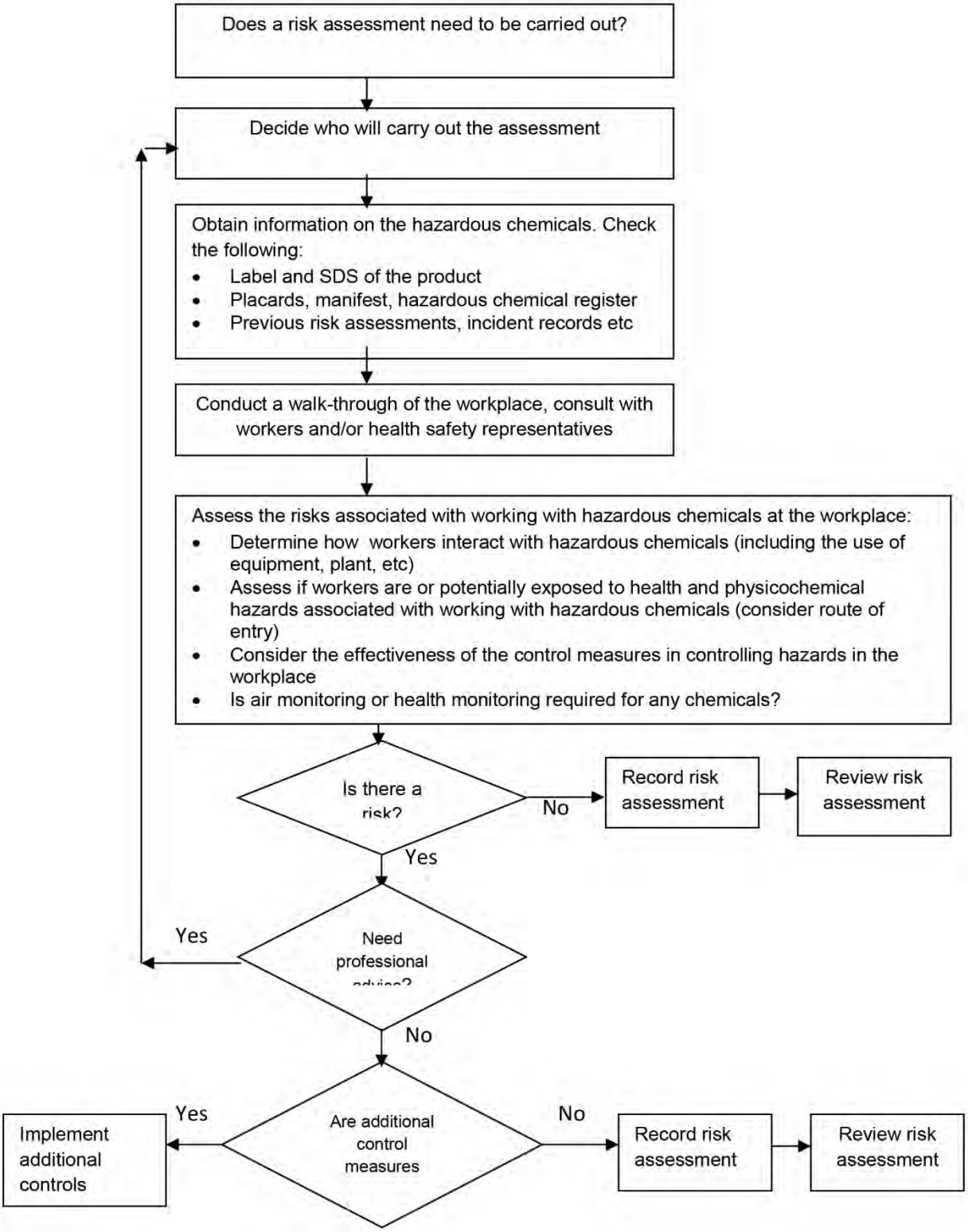
Column 1 Item	Column 2 Hazardous Chemical	Column 3 Type of health monitoring
1	Acrylonitrile	• Demographic, medical and occupational history • Records of personal exposure Physical examination
2	Arsenic (inorganic)	• Demographic, medical and occupational history • Records of personal exposure • Physical examination with emphasis on the peripheral nervous system and skin Urinary inorganic arsenic
3	Benzene	• Demographic, medical and occupational history • Records of personal exposure • Physical examination Baseline blood sample for haematological profile
4	Cadmium	• Demographic, medical and occupational history • Records of personal exposure • Physical examination with emphasis on the respiratory system • Standard respiratory questionnaire to be completed • Standardised respiratory function tests including for example, FEV_1, FVC and FEV_1/FVC • Urinary cadmium and β_2-microglobulin Health advice, including counselling on the effect of smoking on cadmium exposure
5	Chromium (inorganic)	• Demographic, medical and occupational history • Physical examination with emphasis on the respiratory system and skin Weekly skin inspection of hands and forearms by a competent person
6	Creosote	• Demographic, medical and occupational history • Health advice, including recognition of photosensitivity and skin changes

Column 1 Item	Column 2 Hazardous Chemical	Column 3 Type of health monitoring
		• Physical examination with emphasis on the neurological system and skin, noting any abnormal lesions and evidence of skin sensitisation Records of personal exposure, including photosensitivity
7	Crystalline silica	• Demographic, medical and occupational history • Records of personal exposure • Standardised respiratory questionnaire to be completed • Standardised respiratory function test, for example, FEV_1, FVC and FEV_1/FVC Chest X-ray full size PA view
8	Isocyanates	• Demographic, medical and occupational history • Completion of a standardised respiratory questionnaire • Physical examination of the respiratory system and skin Standardised respiratory function tests, for example, FEV_1, FVC and FEV_1/FVC
9	Mercury (inorganic)	• Demographic, medical and occupational history • Physical examination with emphasis on dermatological, gastrointestinal, neurological and renal systems Urinary inorganic mercury
10	4,4'-Methylene bis (2-chloroaniline) (MOCA)	• Demographic, medical and occupational history • Physical examination • Urinary total MOCA • Dipstick analysis of urine for haematuria Urine cytology
11	Organophosphate pesticides	• Demographic, medical and occupational history including pattern of use • Physical examination • Baseline estimation of red cell and plasma cholinesterase activity levels by the Ellman or equivalent method Estimation of red cell and plasma cholinesterase activity towards the end of the working day on which organophosphate pesticides have been used

Column 1 Item	Column 2 Hazardous Chemical	Column 3 Type of health monitoring
12	Pentachlorophenol (PCP)	• Demographic, medical and occupational history • Records of personal exposure • Physical examination with emphasis on the skin, noting any abnormal lesions or effects of irritancy • Urinary total pentachlorophenol Dipstick urinalysis for haematuria and proteinuria
13	Polycyclic aromatic hydrocarbons (PAH)	• Demographic, medical and occupational history • Physical examination • Records of personal exposure, including photosensitivity Health advice, including recognition of photosensitivity and skin changes
14	Thallium	• Demographic, medical and occupational history • Physical examination Urinary thallium
15	Vinyl chloride	• Demographic, medical and occupational history • Physical examination Records of personal exposure

APPENDIX F – OVERVIEW OF A RISK ASSESSMENT PROCESS:

An overview of the process for the assessment of health risks arising from the use of hazardous chemicals in the workplace is provided below.



APPENDIX G – RISK ASSESSMENT CHECKLIST:

Questions		Yes	No
1.	Does a risk assessment need to be carried out?	□	□
2.	Has it been decided who should carry out the risk assessment?	□	□
3.	Have all the hazardous chemicals in the work place been identified? Has a hazardous chemical register been produced?	□ □	□ □
4.	Has information about the hazardous chemicals been gathered? *(refer to labels, SDS, placards and relevant Australian Standards for the type of hazardous chemical)*	□	□
Q. 5 – 9 should be answered for each hazardous chemical or each process where hazardous chemicals are used in the workplace			
5.	Have you checked other records associated with the hazardous chemical? *(Consider previous assessments, monitoring records, injury or incident records, induction training, task-specific training etc)* If 'Yes', are there any hazardous chemical previously assessed as 'high' or as 'significant risk'? Specify the risk(s):	□ □	□ □
6.	Does the chemical have health hazards? *(consider potential acute / chronic health effects and likely route of entry)*	□	□
7.	Does the hazardous chemical have physicochemical hazards?	□	□
8.	Does the hazardous chemical have an exposure standard? *(refer to the Workplace Exposure Standards for Airborne Contaminants)*	□	□
9.	Do workers using the hazardous chemical require health monitoring? *(refer to Part 7.1, Division 6 and Schedule 14 of the WHS Regulations)* If 'Yes', air monitoring may be required.	□	□
10.	Are workers, or can workers be potentially, exposed to hazardous chemicals at the workplace, including by-products and waste? For each hazardous chemical or group of hazardous chemicals in the work unit, find out: Is the substance released or emitted into the work area? Are persons exposed to the chemical? How much are the persons exposed to and for how long? *Air monitoring may be required to determine exposure* • Are there any risks associated with the storage and transport of the chemical?	□	□

Questions		Yes	No
	Have all hazardous chemicals in the workplace been identified? If not, repeat Q.2 for the next hazardous substance.		
11.	Are control measures currently in the workplace well maintained and effective in controlling the hazards? If 'No', take appropriate action.	□	□
12.	What are the conclusions about risk? Only answer 'Yes' to one conclusion. Conclusion 1: Risks are not significant. Conclusion 2: Risks are significant but effectively controlled. If you answer Yes to conclusion 1 or 2, go to Q.14. Conclusion 3: Risks are significant and not adequately controlled. Conclusion 4: Uncertain about risks. If you answer 'Yes' to conclusion 3 or 4, go to Q.13.		
13.	Have actions resulting from conclusion about risks been identified? Seek expert advice. Requires appropriate control measure. Requires induction training. Requires on-going monitoring. Requires health monitoring. Requires emergency procedures and first aid.		
14.	Has the assessment been recorded?	□	□

APPENDIX H – EXAMPLES OF COMMON FUEL AND OXYGEN SOURCES:

Fuel type	Examples*	Label elements
Flammable gases	Liquefied petroleum gas (LPG), natural gas, hydrogen, acetylene, hydrogen sulphide, carbon monoxide.	
Flammable and combustible liquids	Petrol, mineral turpentine, lighter fluid or 'shellite', kerosene, methylated spirit, acetone, ether, ethanol, hexane, pentane, naphtha, some solvent based paints, diesel, including biodiesel, petroleum based oils, some oil based paints, cotton seed, linseed and eucalyptus oils.	 (flammable liquids categories 1-3 only).
Flammable and combustible solids	Bitumen, asphalt, fats and greases, waxes, shellac, acetate and nitrocellulose films, timber and timber products, paper, cardboard, dry grasses, hay, straw, plastics, silk, granulated rubber, metal shavings, filings.	 (flammable solids only)
Other fire risk chemicals**	Pyrophoric substances like some barium and calcium alloys, iron sulphide and celluloid scrap.	
Dusts	Any dusts that can are generated through other processes, such as metal grinding, filling, etc	none
Chemical reactions***	Water reactive chemicals like calcium carbide, sodium hydride, and some aluminium, lithium, magnesium or zinc powders (which liberate flammable gases like hydrogen on contact with water or acids).	

Notes:

* The form of the substance or material can significantly affect the risk. In general, the smaller the particle size the greater the risk. For example, fine shavings or powders of metals present a much greater risk than metals in the bulk or massive form.

** Pyrophoric substances can react spontaneously in contact with air.

*** Chemical reactions which generate gases can also cause explosions through an increase in the pressure in the container in which the chemical is stored if the gas cannot escape, even if that gas does not itself ignite.

Examples of oxygen sources	Label elements
Oxygen and air cylinders in welding equipment, hospitals for treatment of patients, reticulated gas supplies in a laboratory, air tanks in self contained breathing apparatus (SCBA) equipment.	

Examples of oxygen sources	Label elements
Nitric acid, nitrates, nitrous oxide, sodium hypochlorite, chlorates, perchlorates, hydrogen peroxide and organic peroxides, potassium permanganate.	

Note: Oxygen gas is always present in the air so you should assume that it is present in your workplace. Although oxygen gas itself is not flammable, it will cause a fire to burn with more intensity and at a higher temperature. In oxygen enriched atmospheres (greater than around 23%) some substances that are not normally flammable can even self ignite.

APPENDIX I – FIRE AND EXPLOSION RISKS:

Industry	Process	Hazards
Agriculture	Grain silos and auger loaders	Combustible particles in the form of husks and fine dusts, dust explosions
	Chaff and hay processing and storage	Combustible particles & dusts and spontaneous combustion of haystacks
	Milling grains and sugars, cellulose, milling fibres - cotton, linen, polyesters, possible peroxide powders	Flammable and combustible materials, dusts and fibres, possible static build-up, oxidising agents
	Processing oil and oil seeds – cottonseed, linseed, other vegetable oils, canola, olives	Combustible oils with possible combustible wastes
	Viticulture and alcoholic spirit manufacture	Flammable and combustible materials & vats or tanks containing flammable vapours
	Drying and processing grains & vegetables e.g. tobacco drying, vegetable preparation	Cellulose fibres, dusts, and other combustible material, rotting vegetable matter produces methane gas
	Flammable or combustible pesticides	Some pesticides contain flammable or combustible carrier liquids
	Liquid and gaseous ammonia for nitrogen fixing in soils	Flammable gas, toxic gas, corrosive
Automotive industry	Manufacture	Fuels, oils, spray painting, electrical
	Motor mechanics	Fuels, oils, solvents, oxy-acetylene
	Auto electrical	Battery charging, oils and sparks
	Upholstery - vinyls, plastics, glues & solvents, wadding	Flammable and combustible materials
Bakeries	Transferring and pouring flour	Grain flour dusts, heat generation
Battery industry	Recharging wet cells	Hydrogen gas generation and sparks
Bootmaker / Shoe repairs	Gluing, grinding and buffing rubber, leather and plastics	Flammable glues & vapours
Construction industry	Curing agents	Flammable

Industry	Process	Hazards
Chemical industry (manufacturing)	Bulk storage, mixing, blending, aerosol cans - acetone, ether, polishes, oils, waxes, matches, fire lighters, cigarettes etc	Flammable gases, flammable liquids, flammable or combustible solids and other hydrocarbons, sulphur
	Plastics manufacture and rotomoulding	Flammable and combustible solids, powders, oxidation, heat, static sparks
Drycleaners	Solvent cleaners	Flammable liquids and vapours
Electrical industry	Power generation, transformers and transmission lines	Combustible oils, high temperatures and heat, sparks, fires
Explosives industry	Manufacturing, storage, mixing/blending, loading, including auger loaders, nitrates, explosive powders oxidising agents	Potentially explosive metal powders and dusts, mechanical attrition milling, temperature and pressure, flames, heat, incompatible materials
Fibreglass work	Catalysts and resins used contain styrenes and organic peroxides, also use of solvents such as acetone and Methyl ethyl ketones (MEK)	Flammable liquids, oxidising substances and exothermic heat generation capable of causing combustion in other flammable or combustible materials
Film industry	Acetate and nitrocellulose films as well as solvents	Highly flammable and may be liable to spontaneous combustion when exposed to air
Food industry	Grains, flours, sugars, fermentation gases, alcohols	Combustible particles in the form of husks and fine dusts, flammable or combustible gases, and liquids
Gas industry	Manufacturing, storage, transmission, pumping and transport	LPG, methane, hydrogen, acetylene, gas accumulation in tanks, pipes and tankers
Laboratories	Mixing, blending, storage, heating, reactions, acids, alkalis, oxides & peroxides, use of Bunsen burners	Flammable and combustible gases, liquids, solids, dusts, exothermic heat, flames, oxidising agents
Metal production & manufacturing, iron, steel & foundry work, product manufacture	Melting, casting, milling, grinding, welding, electroplating	Molten metals and heat, mechanical attrition milling, metal dusts, shavings, filings, welding gases and sparks, Flammable solvents and electrolysis can produce hydrogen gas bubbles

Industry	Process	Hazards
Mining	Coal mining	Coal dust, methane gas, hydrogen gas, sulphur powder
	Metaliferous mines	Iron, aluminium, magnesium, zinc Metal powders and dusts
Paint industry	Oil and solvent based paints, spray painting	Flammable and combustible aerosolised particles, mists vapours, fumes
Paper and cardboard manufacturing	Paper & cardboard processes bleaching fibres and paper - use of peroxides, fibreboard box manufacture	Combustible particles in the form of fibres and dusts, flammable or combustible materials and articles, oxidising agents
Petroleum Industry and other chemical manufacturing	Crude oil & other petroleum products such as petroleum gases, petroleum fuels & oils including diesel & biodiesel bitumen, kerosene, etc	Generation of flammable and combustible hydrocarbons in the form of flammable gases
Pharmaceutical	Bulk storage, mixing & blending	Flammable and combustible materials and articles
Plastics manufacture	Plastics incl. vinyls, ethylene, styrene, vinyl chloride	Flammable and combustible solids, powders, oxidation, heat, static sparks
Printing industry	Inks, dyes, solvents, paper and cardboard	Flammable and combustible materials and articles. For example: paper & cardboard
Road works	Asphalt and bitumen, LPG heating, kerosene & solvents	Flammable and combustible materials and articles
Sewage treatment	Organic waste treatment	Generation of methane and hydrogen sulphide gases
Textile industry	Cotton, linen, silk, synthetics	Fibres
Tyre manufacture	Hot rubber moulding, gluing and grinding rubber	Heat, flammable & combustible glues, combustible dusts and solids
Underground car parks & cellars	Accumulation of heavier than air gases, carbon monoxide	Flammable gas and asphyxiant
Wood working	Milling and processing, Furniture and cabinet making glues, thinners, oils, waxes, plastics, rubber, shellac	Saw dust, and fine wood dusts, flammable & combustible solvents

APPENDIX J – PRACTICAL EXAMPLES OF CONTROL MEASURES:

The following table illustrates some situations involving risks from hazardous chemicals that may be encountered in the workplace, and provides some examples of controls that may be considered to eliminate or minimise the risks. The conclusions you make in your assessment should be supported by clear and valid evidence.

Examples	Examples of controls
Use of petrol driven vehicles in poorly ventilated work areas	Ensure adequate ventilation. Consider use of electric or diesel vehicles.
Activities which involve prolonged skin contact with hazardous chemicals that are either readily absorbed through the skin or that can directly affect the skin	Change work practices to avoid skin contact, or select and use appropriate PPE to control exposure
Handling of caustic or acidic chemicals where there is a potential for splashes onto the skin or eyes	Consider installing automated systems to dispense or transfer chemicals between containers. Use eye protection. Provide an emergency eyewash facility.
Dry sweeping of fine particulates	Use vacuum cleaning as an alternative, or wet cleaning methods.
Manually cleaning printing screens or large printing rollers with large quantities of volatile solvents.	Automate or enclose the process and ensure adequate ventilation. Use non-volatile solvents or detergent/water based cleaning solutions
Processes for which monitoring results approach or exceed exposure standards	Upgrade ventilation systems so that monitoring results are well below the exposure standard. More efficient ventilation systems may avoid the need for expensive air monitoring in some situations.
Evidence of significant quantities of fine deposits on workers and surfaces, or processes that generate fine mists or solid particulates (including fumes) within the breathing zones of workers	Review control measures of the process to minimise release of particles at the source. Examples may include enclosing the process or installing ventilation systems. Review and revise housekeeping procedures to remove dust build up more frequently.
Application of volatile chemicals over large surface areas	Substitute less volatile and hazardous solvents.

The following information provides more specific guidance and recommendations on managing the risks for particular types of hazardous chemicals, primarily those hazardous chemicals that are dangerous goods. It gives in more detail some precautions that you should consider to assist in the safe management of higher hazard chemicals like gases under pressure, flammable liquids and solids, self-reactive and oxidising substances as well as advice on how to manage the risks during the abandonment or removal of underground storage tanks.

GAS CYLINDERS (Gases under pressure):

Used or empty cylinders should be treated with the same precautions as for full cylinders, since residual hazards remain.

Testing and maintenance of gas cylinders:

Gas cylinders need to be tested periodically to ensure that they remain safe to use. A poorly maintained gas cylinder can leak, exposing workers to harmful or potentially explosive vapours, or fail catastrophically. In-built safety features may also become inoperable over time. Details of inspection and testing for gas cylinders are provided in AS 2030.1: *Gas cylinders – General requirements*.

As a guide, gas cylinders should be tested every 10 years for dry gases and more frequently for damp or corrosive gases – check with the gas supplier if you need advice. The last test date will be stamped on the cylinder near the valve or on the collar, or on the foot ring of some small cylinders. If the test period has expired, the cylinder may be unsafe to use and it should not be refilled until it is re-tested (and receives a new date stamp). However, it is permissible to use up the cylinder's contents after its test date has expired, prior to testing. Alternatively it could be replaced with a new cylinder. Testing stations can give advice on disposal of a used cylinder if you wish to replace it. Owners of cylinders should keep records of testing and test dates.

Storage and handling of gas cylinders:

Cylinders may be stored safely by following these steps:

- Any cap provided for use with a cylinder is kept in place on the cylinder at all times when the cylinder is not being filled and not connected for use.
- The cylinder valve is kept securely closed when not in use, including when empty (unless the cylinder is connected by permanent piping to a consuming device)
- Any removable valve protection cap or valve outlet gas tight cap or plug is kept in place on the cylinder at all times (unless the cylinder is being filled or connected for use)
- Keep the cylinder secured against unintended movement by installing chains preventing the cylinder from falling
- Do not lubricate valves or attempt repair of leaks – if the valve is not closing properly, immediately remove the cylinder to a safe area outdoors and seek expert assistance
- Have a water hose or fire extinguisher handy to put out any small fire close to the cylinder – a water spray can also be used to keep the cylinder cool in the event of a fire.

To ensure the in-built safety features of a cylinder function correctly, cylinders of liquefied flammable gas need to be positioned so that the safety relief device is in direct contact with the vapour space within the cylinder. Keep the cylinder upright, unless the design permits other positions – this depends on the position and operation of the relief device. If in doubt check the manufacturer's or supplier's instructions.

For further guidance on safe storage and handling of gas cylinders, refer to AS 4332: *The storage and handling of gases in cylinders.*

Further advice on storage and handling of specific gases is available from the following Australian Standards:

AS/NZS 2022: *Anhydrous ammonia – Storage and handling*

AS 1894: *The storage and handling of non-flammable cryogenic and refrigerated liquids*

AS/NZS 2927: *The storage and handling of liquefied chlorine gas*

AS 3961: *The storage and handling of liquefied natural gas*

AS/NZS 1596: *The storage and handling of Liquefied Petroleum (LP) gas*

AS 4839: The safe use of portable and mobile oxy-fuel gas systems for welding, cutting, heating and allied processes

AS 4289: Oxygen and acetylene gas reticulation systems

UNODOURISED LIQUEFIED PETROLEUM GAS (LP GAS) OR DIMETHYL ETHER

Although the sense of smell should not be relied upon to detect gas leaks and hazardous chemicals, it can often provide some level of warning to nearby workers in some instances. Unodourised LP Gas can be particularly hazardous and, due to the absence of any discernable odour, it cannot be detected by the sense of smell. Dimethyl ether (DME), a highly flammable gas, is often used as a propellant for LP gas.

The risks from storing and using unodourised LP Gas can be reduced by using the following control measures:

- Keep the storage and handling of unodourised LP Gas or DME to a minimum, and restrict uses to those for which no less hazardous alternative is available (e.g. aerosol propellant)
- The area where it is stored and handled should be well ventilated, or in a room designed for that purpose fitted with explosion ventilation, or in the open. Access to these areas should be restricted to essential personnel.
- Gas detection equipment should be installed to detect gas where an explosive atmosphere could develop and provide an automatic alarm before dangerous levels of gas are reached so that immediate action may be taken. The gas detector should emit an audible sound and have a visual display.

FLAMMABLE LIQUIDS IN PACKAGES AND IN BULK (Class 3 dangerous goods):

Australian Standard AS 1940: *The storage and handling of flammable and combustible liquids* provides guidance on the safe storage and handling of flammable and combustible liquids, including aspects such as package stores, bulk storage, tank design, pipework and valves.

ABANDONING OR REMOVING UNDERGROUND TANKS OF FLAMMABLE LIQUIDS:

The WHS Regulations require notification to the regulator when an underground, partially underground or fully mounded tank containing flammable liquids or flammable gases is to be abandoned. When the container no longer contains hazardous chemicals, placards and signs should be removed.

Any work on existing or abandoned underground tanks or associated pipework is potentially dangerous where residual levels of the flammable gases, liquids and vapours are present. Introducing an ignition source may cause an explosion or other dangerous occurrence unless suitable procedures are adopted.

Tar-like deposits and sludge may have accumulated in the tank and pipe work. Flushing with water may not remove them and vapour testing may not detect this. Exposure of these deposits to air and sunlight under normal temperatures, or work involving heat (e.g. use of grinders or oxy-acetylene cutting), may release vapours creating a potential explosion hazard.

By following the steps listed below, the likelihood of dangerous occurrences can be minimised or even eliminated:

- Remove the tank from the ground and transport to a disposal area and arrange for the tank to be decommissioned.
- Fill the tank with an inert solid material like concrete or sand.
- If it is intended that the tank be used again (within two years), you can fill the tank with water and a corrosion inhibitor.

Further information on removal and disposal of underground tanks is available in Australian Standards, for example AS 4976: *The removal and disposal of underground petroleum storage tanks*.

SELF-REACTIVE SUBSTANCES, FLAMMABLE SOLIDS, PYROPHORIC LIQUIDS AND SOLIDS, SELF-HEATING SUBSTANCES AND MIXTURES AND SUBSTANCES WHICH IN CONTACT WITH WATER EMIT FLAMMABLE GAS (Class 4 dangerous goods)

There are a number of key considerations for controlling the fire risks from storing and handling the above types of hazardous chemicals. These include:

- Ensuring non-combustible materials are used in the construction of buildings and storage areas.
- Installing and maintaining appropriate fire protection systems.
- Utilising separation distances (or barriers such as fire resistant screen walls).
- Ensuring ignition and heating sources are controlled within the storage and handling areas, for example, electrical equipment used in these areas is intrinsically safe.
- Ensuring adequate ventilation and/or extraction is provided to avoid creation of a hazardous atmosphere or hazardous area.
- Installation of explosion doors or vents if there is the potential that flammable gases or vapour could be formed or there is the potential to form combustible dusts.
- Ensuring that the storage area is moisture free and protected from the elements.
- Ensuring that measures are taken to protect light or temperature sensitive materials, for example, by installing temperature controls or protecting from direct sunlight.

Tanks to be used for storing or handling these hazardous chemicals should be designed and operated to ensure that:

- Moisture cannot enter the tanks.
- Valves and fittings are readily accessible, easily operated and operate as designed.
- If practicable, remote operation for primary shut off valves at the tank is provided.

FLAMMABLE SOLIDS (Class 4.1 dangerous goods):

Nitrocellulose film and other nitrocellulose products – handling and storage

Nitrocellulose film and product containing nitrocellulose can represent a significant explosion hazard if the risks are not properly controlled. Risks can be minimised by:

- Reducing the amount of material stored or handled in the work area at any one time.
- Ensuring the storage and handling area is constructed from non-combustible materials.
- Ensuring there is sufficient means of escape in the event of an emergency. For example, use of outward opening doors, and removing all non-essential furniture and equipment from the work area to allow unimpeded access to the emergency exit.
- Eliminating all ignition sources, including:
    - using intrinsically safe electrical wiring and equipment suitable for use in hazardous areas;
    - guard or enclose heating elements and other electrical equipment to prevent ignition or decomposition of any nitrocellulose products; and
    - keeping the temperature of any surfaces and equipment (including enclosures) to a suitably safe temperature for the material being used.
- Installation of an automatic sprinkler system.
- Preventing the accumulations of excessive amounts of waste materials.
- Displaying suitable signs warning of hazards and precautions (for example, “No smoking”).

OXIDIZING AGENTS (Class 5.1 dangerous goods):

Oxidising substances are hazardous chemicals that are reactive and can support combustion. They can react and are incompatible with a range of other substances including organic materials (wood, paper) and hydrocarbon solvents. You should always refer to the SDS to check for any incompatibilities with the materials you are using, storing or handling.

Unintended dangerous reactions of oxidising agents can be avoided by observing the following precautions:

- Keep away from combustible or readily oxidisable materials, including fuel containers, sulfur and powdered metal and any other incompatible materials. Stores of oxidisers should be a reasonable distance away (for example, at least 5 m).
- Place packages and containers on clean pallets, racks or shelving to allow easier detection of leaks and to prevent contact with other substances. Some oxidising chemicals can ignite on contact with timber, therefore, old and weathered pallets should not be used.
- Eliminate sources of heat if practicable. If this is not practicable, ensure that heat sources do not allow the oxidising agents to be heated to within about 15°C of their decomposition temperature.
- Keep packages closed when not in use to avoid spillage.
- Do not park or drive any vehicles (e.g. forklifts) nearby because heat from the engine or fuel or oil leaks may cause a dangerous occurrence.
- Do not store any liquids above oxidizing agents in case leaks cause incompatible materials to spill onto the oxidising substance.
- Do not allow accumulation of dust and keep surfaces clean in areas where oxidising substances are handled in the workplace.
- Clean up spillages immediately and dispose of waste in accordance with your local regulations. Do not mix substances in the waste bin because they might react or cause a fire.

Solid (dry) pool chlorine:

If your workplace keeps large quantities of solid (dry) pool chlorine on the premises, avoid dangerous reactions by observing the precautions listed above. You should also ensure that the pool chlorine is kept a safe distance away (e.g. at least 10 m) from any ammonium salt like ammonium sulfate, or be separated from it by suitable bunding.

ORGANIC PEROXIDES (Class 5.2 dangerous goods):

Organic peroxides are capable of self-reaction and stabilizers are usually necessary. Some are classified as “Goods too dangerous to be transported” and extreme caution is needed when storing or handling these materials.

Like oxidising agents, organic peroxides can be highly reactive with incompatible materials and precautions are necessary to avoid unintended reactions occurring. Risks can be eliminated or minimised by observing the following precautions:

- Keep packages in a specifically designated and designed cabinet, room or external storage building containing explosion vents and/or doors to limit the effects in the event of an explosion.
- Keep a suitable safety zone (e.g. 5 m) opposite the cabinet or storeroom doors and blow out panels.
- Use cabinet doors with friction or magnetic catches to allow any pressure build up to escape more easily.
- Keep nothing else in the organic peroxides store. If this is not practicable, then measures should be taken to ensure that incompatible materials cannot come into contact with the organic peroxides.
- Keep the storage area free of waste, dirt, dust or metal filings (these could react with spillages) or any combustible materials.
- Eliminate ignition sources inside, or outside within a suitable exclusion zone (e.g. 3m) of the storage area or entrance to the store.

- Keep packages on sealed or laminated hardwood or coated metal shelves free from rust or corrosion to avoid a harmful reaction in the event of a spill.
- Keep a space of at least 100 mm between the packages and the floor, ceiling, or walls. Fitting a guarding system or raised shelving can assist with this.
- Keep suitable spill containment equipment close to the store which can be accessed quickly and used in the event of a spillage.
- If opening packages, take them at least 3 m clear of the store. Reseal all packages before returning them to the store.

Temperature controls can be important in the safe handling and storage of organic peroxides. To avoid harmful reactions or decomposition of the organic peroxides due to temperature:

- Determine any critical temperatures including any recommended maximum temperature. The label and SDS may provide this information. Otherwise, other sources should be consulted. Keep the store within the recommended temperature range for the different types of organic peroxides present and keep organic peroxides out of direct sunlight.
- Do not permit heating to be installed in the storage area.

If cooling or refrigeration is required to maintain the desired temperature in the storage area, expert advice should be obtained because air conditioners and unmodified refrigerators are potential ignition sources.

Further information on storage and handling of organic peroxides can be obtained from AS 2714: The storage and handling of organic peroxides.

CORROSIVES (Class 8 dangerous goods)

Corrosive substances and mixtures [Class 8 dangerous goods] can be either alkaline or acidic and these two categories are incompatible. Acids should never be stored with alkaline chemicals due to the potential for harmful reactions. Some reactions of acids and alkaline chemicals can be highly exothermic and rapidly generate large amounts of gas, causing an explosion risk.

Risks associated with storage and handling of corrosive substances and mixtures can be eliminated or minimised by observing the guidance in the following Australian Standards:

AS 3780: The storage and handling of corrosive substances

AS 1940: The storage and handling of flammable and combustible liquids (where the corrosive substance or mixture is also a flammable liquid or has a dangerous goods Subsidiary Risk of Class 3 (flammable liquid)

AS/NZS 3833: The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.

Eyewash and safety showers should be readily accessible where corrosives are handled or transferred.

APPENDIX K – CASE STUDIES:

A number of examples illustrating the process of risk assessment and control are presented in this section. They do not cover all the possible hazards, risks and control options for the particular situations described. Their purpose is to demonstrate the different ways in which the process can be carried out, and the steps involved in making decisions – particularly about the risk and the controls to be put in place. As these case studies show, the complexity of the process depends on the substance(s) used and the nature of the work.

Case study 1: Motor vehicle finishing workshop:

A spray-painting shop uses isocyanate spray paints and organic solvents for equipment cleaning and paint thinning.

One of the spray-painters reported symptoms of skin rash and light-headedness, which often occur at the end of his shift. The reported symptoms are consistent with exposure to isocyanates. It was decided to assess the processes undertaken at the shop to see if any measures could be taken to reduce exposure to the chemicals being used.

The team at the spray-painting shop were not experienced in carrying out risk assessments so engaged the services of a professional occupational hygienist.

The team assessed the working environment and found significant risk of exposure to isocyanates and organic solvents in the four main tasks carried out at the premises.

Mixing: This manual operation is performed in a segregated area with no mechanical ventilation. According to the SDS, most of the isocyanate present in the paint hardener (HDI) was present in a relatively non-volatile pre-reacted form (a "pre-polymer") and the concentration of the more volatile non-polymerised form was less than 0.4 %. Given the nature of the task, inhalation exposure to HDI vapour or aerosol during mixing was low. However, there remained a significant risk to health due to potential skin exposure because gloves are not generally worn. The mixing takes around 15 minutes to complete and is performed as required.

***Colour matching*:** This is carried out in the same area as the mixing and involves spraying a test panel until the required colour is achieved. It was concluded that there is a significant risk of short-term inhalation exposure to isocyanate-containing aerosol and vapour because respiratory equipment is not routinely worn for this task and there is no ventilation. There is also a risk to health through skin exposure to isocyanates because suitable PPE is not generally worn. The colour matching takes approximately five minutes and is undertaken no more than twice in any given day.

Spray painting: A brand-name two pack paint system is used for spray painting vehicles. This is carried out in a ventilated down-flow booth that complied with AS/NZS 4114: *Spray painting booths – Design, construction and testing* but had not been maintained properly for some years. The spray painter wears a half-face combined particulate/vapour respirator while performing this task and no other protective equipment other than standard cotton overalls. It was concluded that there was significant inhalation risk to the spray painter as the respiratory equipment was not suitable for the task. There was also a risk of skin contact because suitable PPE, such as gloves was not worn. The spray painter spends up to six hours per day spraying.

Cleaning: This task is also carried out in the same area as the mixing and colour matching operations. Used equipment is soaked in an open vessel containing organic solvent. Solvent-soaked rags used for cleaning were placed in an open bin beside the mixing table for disposal. According to the SDS, the solvent is flammable. Equipment cleaning takes around 30 minutes and is performed at the end of the day. The solvent is stored in a flame-proof, lockable cabinet when not in use.

The assessment also considered the potential for a fire or explosion resulting from the use of the flammable solvent. The assessment indicated that the use of solvents was not extensive and only small quantities were kept on the premises at any one time. Solvents are stored in a lockable, flame-proof cabinet. Paints were thinned and mixed when required in a dedicated work area and no ignition sources were present in that area. When used for cleaning of equipment, this

was in the same area and had electrical equipment that was rated as intrinsically safe in accordance with the relevant Australian Standards.

The following main actions from the assessment are recommended:

- Regular maintenance and testing of ventilation rates and the clearance time of the spray booth.
- Regular replacement/cleaning of filters in the spray booth.
- Provision of suitable personal protective equipment including respiratory protection against solvent vapours during spray painting and airborne isocyanates.
- Regular air monitoring of solvent vapours and isocyanates.
- Health monitoring (including biological monitoring) for determining isocyanate exposure be considered.
- Appropriate training of workers.

TASK	ROUTE OF EXPOSURE	CONTROLS ALREADY IN PLACE?	RISK TO HEALTH? Yes/No/Not Sure		ACTIONS TO BE TAKEN
MIXING	Skin	No specific controls are used	Yes	SDS states that isocyanate and thinning solvent exposure can cause skin irritation. The risk of exposure is high because protective clothing is generally not worn.	Gloves and overalls should be worn as stipulated on SDS
	Inhalation	No; the area used for this task is not mechanically ventilated	Yes	SDS of pre-polymer indicates only 0.4% content of volatile HDI. Given the nature and duration of the task, the risk of exposure from inhalation is not considered significant. There is risk to health from inhalation from solvents used for thinning paints.	Air monitoring should be considered to assess levels of solvents used for thinning paints. Due to low levels of volatile HDI in paint, the risk is low, however, it may still be worth considering air monitoring for isocyanates too.
	Ingestion	No eating, drinking or smoking permitted	No	Procedures are followed.	N/A
COLOUR MATCHING	Skin	No specific controls are used	Yes	The risk of skin exposure is high because gloves and suitable overalls are not worn for this task. Isocyanates are skin irritants and sensitisers.	Gloves and overalls should be worn as per SDS to prevent skin contact.
	Inhalation	No specific controls are used	Yes	Short-term inhalation exposure of isocyanate aerosol and vapour is high during spraying because no respiratory protection is worn. Exposure standard may be exceeded during this task. Isocyanates are respiratory irritants and	This task should be performed wearing an air-fed, full-face respirator to prevent inhalation. Perform task in down flow spray booth. Immediately service down flow booth to ensure it is working as designed and installed. Air monitoring for isocyanates is recommended unless process moved to
	Ingestion	No eating, drinking or smoking is permitted	No	Procedures are followed	N/A

TASK	ROUTE OF EXPOSURE	CONTROLS ALREADY IN PLACE?	RISK TO HEALTH? Yes/No/Not Sure		ACTIONS TO BE TAKEN
SPRAY PAINTING	Skin	No specific controls are used	Yes	The risk of skin contact is high because isocyanate-based paint is sprayed without protective clothing being worn. The respirator only covers half the face of operator so skin on face and head at risk of exposure	Protective gloves and overalls should be worn as per SDS to prevent skin contact. Air-fed, full face respirator should be worn.
SPRAY PAINTING (cont.)	Inhalation	A combination particulate/vapour respirator is used. This respirator only covers half of the face.	Yes	This task is performed in a down-flow booth which has not been maintained properly for some years. Furthermore, the respiratory equipment is inadequate; particulate/vapour respirators are not particularly suitable for spray painting. Health effects from inhalation of isocyanates are serious and can be irreversible. The task is long in duration and the exposure standard is very low. This is a high risk activity.	Downflow booth should be immediately serviced and tested to ensure it is working effectively. A regular maintenance program needs to be put into place. Spray painting should be undertaken using a full-face, air-fed respirator. Health monitoring should be considered to ensure controls are adequate.
	Ingestion	No eating, drinking or smoking is permitted	No	Procedures are followed	N/A
CLEANING	Skin	No specific controls are used	Yes	Gloves and overalls are generally not worn. Although the task is relatively short, the solvent is highly flammable and a skin irritant. The risk of skin exposure is high due to no gloves being used. SDS states that prolonged skin contact with the solvent may lead to	Consider automated spray-gun washing up unit Use gloves and overalls are per SDS

TASK	ROUTE OF EXPOSURE	CONTROLS ALREADY IN PLACE?	RISK TO HEALTH? Yes/No/Not Sure		ACTIONS TO BE TAKEN
	Inhalation	No specific controls are used	Yes	The solvent is volatile and represents an inhalation risk. Cleaning is performed in an open vessel and soiled rags stored in an open bin with low ventilation in the room, which can allow solvent vapour to build up.	Install wash-up units fitted with LEV Use respirator fitted with organic vapour cartridge Use a closed vessel to minimise evaporation and perform cleaning in area with better ventilation. Store solvent-soiled rags in a suitable, sealed container prior to disposal.
	Ingestion	No eating, drinking or smoking is permitted	No	Procedures are followed	N/A

ARE THERE ANY REPORTED HEALTH EFFECTS?:

A spray painter has reported skin irritation and light-headedness after spray painting. These symptoms are consistent with exposure to isocyanates. Immediate action is necessary. The affected employee should be moved on to different duties and immediately assessed by a medical practitioner and should not return to spray painting until cleared to do so.

PHYSICOCHEMICAL EFFECTS:

Flammable solvents are used in the workshop however quantities are small. The solvent being used is highly flammable. It is stored overnight, along with any generated waste, in a lockable, flame-proof cabinet prior to disposal by a local waste company. There have been no reported spillages in the past 12 months and no fires have occurred. Smoking is prohibited and the procedure strictly adhered to and there are no other sources of ignition close to the storage or mixing areas. The equipment in the spraying work area is rated as intrinsically safe. The overall risk of fire is not significant if current procedures are maintained.

OTHER COMMENTS:

The workshop has strong chemical odours. The filters servicing the spray booth should be cleaned and/or replaced at the end of each working day to prevent the build up of ignitable vapours from spraying operations.

Spray booth has not been serviced for some time and air flow does not meet AS requirements.

ACTIONS ARISING:

See above assessment matrix for action in light of the assessed processes.

Particular attention should also be paid to the following to ensure that controls maintain their integrity and protect employees

- Scheduled testing of the downflow ventilation system
- Regular replacement/cleaning of filters in the spray booth

ASSESSMENT RESULT AND RECOMMENDATIONS BY (person responsible): Occupational Hygiene Consultant Pty Ltd.

ACTIONS DUE BY AND RE-INSPECTION DATE: 1 March 2012

APPROVED BY/NAME: General Manager **SIGNATURE:** **DATE:** 2/1/2012

ASSESSOR'S SIGNATURE: Occupational Hygiene Consultant Pty Ltd **SIGNATURE**: **DATE:** 2/1/2012

Case study 2: Vapour Degreasing Operation:

Job description:

Small metal components are produced on an automated press that uses oil as a lubricant for the cutting tool. The components are collected in a metal basket and then manually transferred into the solvent vapour-degreasing unit to remove the oil. Trichloroethylene is used as the degreasing solvent. One operator runs the press and the degreasing unit.

Information about the chemical classification:

Manufacturer's SDS and label indicate that trichloroethylene (a volatile solvent) is a hazardous chemical. The oil is not classified as a hazardous chemical.

Health effects for the different routes of exposure:

The SDS indicates that exposure through inhalation can affect the central nervous system and organs such as the liver, lungs and kidneys. Skin and eye irritation can also occur on contact.

Physicochemical hazards of the chemical:

Stable at normal conditions, and stable under recommended storage conditions.

Flammability – substance is not flammable. However, it decomposes in a fire giving off toxic fumes: hydrogen chloride gas.

Conditions to avoid: Keep away from open flames, hot surfaces and sources of ignition.

Materials to avoid: Incompatible with strong bases and oxidizing agents, alkaline metals / alkaline earth metals.

Exposure standard:

The exposure standard for trichloroethylene is 10 ppm (parts per million) in air averaged over an 8-hour period. Trichloroethylene also has a short-term exposure limit (STEL) of 40 ppm averaged over a 15 minute period.

Controls already in place:

Task: normal operation:

The degreaser is fitted with a cooling coil to prevent escape of the hot vapour. The baskets are lowered into, and raised out of the degreaser at a pre-set controlled rate (slow speed) using a winch to minimise vapours being dragged out of the unit.

Task: cleaning out the sludge:

Before the operator enters the degreaser to clean out the sludge, the solvent is drained out of the unit. A half-face respirator and gloves are worn. This task is carried out approximately three times a year.

Task: storage areas:

The chemical is stored away from incompatible materials.

Routes of exposure:

Considering the nature of the hazardous chemical and the task during normal operation, the main route of exposure is inhalation. There is very little potential for skin and eye contact during normal operation because of the way the components are handled and the solvent readily evaporates. This would also apply to ingestion.

When cleaning out the sludge at the bottom of the degreaser, there is the potential for significant skin and eye exposure in addition to inhalation.

Evaluation of risk to health:

It was determined that there is a risk to health for the following reasons:

The degreaser is quite old and poorly maintained.

A very strong solvent odour can be detected in the vicinity of the degreaser, particularly when lifting the basket out. This is because the components trap the condensing solvent vapour. In this case, stacking the components in the basket in a different way would not overcome this problem.

The operator has reported symptoms of eye irritation and light-headedness.

The operator would be exposed to a very high level of trichloroethylene vapour whenever the build-up of sludge is cleaned from the bottom of the degreaser. Although this task is only performed occasionally, it requires the operator to get into the degreaser and as such is a 'confined space entry' which comes under the WHS (Confined Spaces) Regulations. Exposure to the substance in this confined space poses a serious risk to health (possibly death) particularly through inhalation of trichloroethylene vapour. The personal protective equipment used provides inadequate protection.

Evaluation of risks from physicochemical hazards:

Since the chemical is stored away from incompatible materials, the risk of hazardous reactions occurring during storage is minimal.

Controls to be put in place.

The sole purpose of the vapour degreasing operation is to remove the fine coating of oil and supply the client with a clean product. Discussion with the client indicated they prefer the components to be coated with oil as it protects against corrosion whilst the components are stored on their premises. Therefore it was decided that the use of trichloroethylene be eliminated.

Case study 3: Cleaning offices:

Risk Assessment Report Date: 20 June 2011:

Assessor(s):

Management and health and safety representative

Job description:

Products used by cleaners of several office blocks include a disinfectant, a toilet cleaner and a glass cleaner. The toilet and glass cleaners are used as supplied. The disinfectant is diluted with two parts of water and sprayed and wiped onto surfaces. Dilution (mixing) of the disinfectant (Zap) takes place in a central storeroom.

Hazardous chemical:

The SDS for Zap indicated that the product is classified as hazardous. Manufacturers of the other products confirmed that their products were not hazardous according to the WHS Regulations.

Form:	Water based concentrate.
Active ingredient:	Sodium hypochlorite (15%).
Health effects:	Skin, eye and respiratory irritant; prolonged. skin contact may cause dermatitis.
Routes of exposure:	Skin, eyes and inhalation (particularly spray mist). Exposure through ingestion is not considered to present a risk to health because of the nature of the tasks and the controls in place (see below).
Physicochemical hazards	May decompose above 40°C, in sunlight or in contact with acids. Also reacts with oxidisable materials, heavy metals (which act as catalysts), reducing agents, ammonia solutions,

ether, and many organic and inorganic chemicals such as paint, kerosene, paint thinners, shellac, grease and oils. May liberate chlorine gas on decomposition.

Who is exposed:

All cleaners are involved in the mixing and application of Zap.

Frequency and duration of exposure:

Mixing (dilution) is done once at the start of each shift. It takes approximately a minute to perform this task. Workers use the working strength solution for 4 hours a day, 5 days a week.

Controls already in place:

- Cleaners are provided with training on the hazards of using the chemicals, including correct storage locations.
- Cleaners are provided with rubber gloves.
- There is good general ventilation in the storeroom.
- Eating, smoking and drinking is prohibited in the storeroom. Signs to this effect are displayed.
- Washing facilities are available in the storeroom and in the areas where Zap is used.
- Only non-metallic plastic containers are used for mixing and it is stored indoors away from direct sunlight.

Risk Assessment Worksheet

Task	Routes of exposure	Risk to health? (Yes/No/Not sure)
Mixing	Skin/eyes	YES: • Handling of the concentrate presents the greater risk –particularly to skin and eyes. • Splashes to the skin and face have occurred occasionally when decanting concentrate. • Gloves provided are not always worn. • Goggles or a face shield are not provided.
	Inhalation	NO: • Exposure through inhalation does not present a risk to health due to the short duration of the task. • Adequate general ventilation. • Potential for generating fine spray mist during this task is negligible.
Spray and wipe	Skin	YES: • Gloves provided are not worn very often. • SDS indicates that prolonged contact even with the diluted substance may cause skin irritation and possibly dermatitis.
	Inhalation	YES: • When working in confined, poorly ventilated areas.

Task	Routes of exposure	Risk to health? (Yes / No / Not sure)
		• Fine spray mist generated by spray applicator.

Risk control actions:

- Purchase the concentrate in containers fitted with a dispenser (tap) to minimise the potential for spills and splashes during decanting. Hang a small plastic container under the tap dispenser to contain any drips. Alternatively, an automatic dilution and dispensing system may be installed to avoid contact with the concentrate.
- Use a more dilute working strength solution. The directions for use on the label recommend a concentration of 1-2% for this type of application. Cleaners have been using a more hazardous 5% working strength solution. The reason for this is not known.
- Use a coarse spray applicator to reduce the potential for exposure through inhalation.
- Make further enquiries about alternative products by contacting manufacturers. Consider purchasing a ready-to-use (1-2%) solution of the product to eliminate mixing, or consider a less hazardous product.
- Rubber gloves must still be worn during application of the dilute solution, in order to avoid prolonged contact. Information and training is to be provided on the nature of the hazards, risks and the need to wear the gloves

Case study 4: Pesticide spraying

Assessor(s): Manager; health and safety representative; spray operator

Hazardous chemical:

Product name: Chlorpyrifos 500 EC

Form: Solvent based concentrate containing 500 grams per litre of Chlorpyrifos in a hydrocarbon solvent

Active ingredient: Chlorpyrifos (an organophosphorus insecticide)

Health effects: Nervous system (cholinesterase inhibition)

Major routes of exposure: Inhalation (spray mist and solvent) and skin absorption (Chlorpyrifos is readily absorbed through intact skin). Chlorpyrifos is an insecticide used on vineyards. Sometimes other liquid organophosphates are also used, following the same mixing and spraying techniques. Therefore this assessment would also cover their use.

500ml of the concentrate is poured (decanted) from a 20 litre drum, into a plastic jug. Before pouring this into the spray tank of a tractor-drawn air blast sprayer, water is added to the tank to dilute the concentrate to a concentration of 0.25 grams per litre (i.e. 2000 times dilution).

The tractor-drawn air blast sprayer can generate a large quantity of fine spray mist.

Chlorpyrifos is sprayed two to three times a week on several vineyards from about October to February.

One operator, who has completed the Farm Chemical Users Course (FCUC), does all the mixing, spraying and the cleaning up of the equipment used.

Others who may be exposed to some Chlorpyrifos are those involved in thinning, pruning or repairing spray equipment. They are not considered to be at risk (refer to report).

Physicochemical hazards: chemical is a flammable liquid Category 4 (flash point 68°C).

Job description:

Task	Routes	Controls already in place	Risk to health? Yes / No / Not sure		Action
Mixing	Skin	Gauntlet rubber gloves, PVC apron, gumboots and face shield worn. Measuring jug is rinsed immediately after use. Tap available for washing.	**Yes**	Spills and splashes have occurred. Chlorpyrifos is very toxic. It is handled in concentrated form. The SDS indicates it is easily absorbed through skin. If protective equipment is not worn or properly maintained there would be a serious risk to health.	Consider ways of eliminating or reducing the use of the pesticide. Consider using a less hazardous pesticide. Investigate the use of suitable dispensers to minimise spills. A dispenser would mean that less personal protective equipment would be required.
	Inhalation	Mixed in well-ventilated area.	**No**	The SDS indicates that Chlorpyrifos is not very volatile. The solvent is volatile but mixing only takes a few minutes and is done in a well-ventilated area.	
	Ingestion	No eating, drinking or smoking when handling the pesticide. Washing facilities are provided.	**No**	Procedures followed. Operator has attended training course. Supervision provided.	
Spraying	Skin	No specific controls besides a cotton hat, long sleeve cotton overalls and leather work boots are worn.	**Yes**	The operator may be exposed to spray drift although the pesticide is not as concentrated as when it is mixed. The airblast sprayer can generate a large quantity of fine spray mist.	Consider the use of a tractor cabin to control the risk. If the use of a tractor cabin is not practicable, consider application techniques that reduce spray drift.
	Inhalation	As above.	**Yes**	As above.	
	Ingestion	No eating, drinking or smoking when handling the pesticide. Washing facilities provided.	**No**	Procedures followed.	

Task	Routes	Controls already in place	Risk to health? Yes / No / Not sure		Action
Thinning **Pruning** **Picking**	Skin, Inhalation, Ingestion	Recommended re-entry periods are observed. People doing these jobs also know when the vineyard was sprayed and the pesticide used. Jobs on the vineyard are coordinated so that people not involved in spraying are kept well away from the areas where Chlorpyrifos 500 EC is sprayed. These people are told when spraying is being done and where.	**No**	Refer to "CONTROLS ALREADY IN PLACE". Note: where re-entry periods are not given, operators doing these jobs do not enter the orchard for at least 24 hours so that the spray mist has settled.	None. Current controls are adequate. Ensure existing controls are maintained.
Cleaning, service and repair of equipment	Skin, Inhalation, Ingestion	After spraying, the empty tank is rinsed and the nozzles flushed. Where the tank is not empty the remaining contents are disposed of in accordance with label instructions, including use of appropriate PPE. The spray equipment, including the tractor, is also hosed down. This process is repeated for the tank and the nozzles if the equipment is to be repaired or serviced externally.	**No** **Yes**	Where the spray tank is empty following spraying, the pesticide is further diluted during cleaning and the task is such that there is no likelihood of skin contact with the diluted pesticide/rinsing water. Where the tank is not empty after spraying, skin contact and inhalation may occur during emptying. Risks are minimised by following label directions and wearing appropriate PPE.	None

Task	Routes	Controls already in place	Risk to health? Yes / No / Not sure		Action
Storage and mixing	Fire risks	Storage and mixing operations involving the flammable concentrate are a dedicated work area away from ignition sources and incompatible materials like oxidisers (hypochlorite bleach). Recommendations in AS 1940: Storage and handling of flammable and combustible liquids have been followed. Workers are provided with training and advised of the fire risks.	**No**	Procedures in place and followed including not smoking in storage and mixing areas or while mixing.	None

Notes

1. Organophosphate pesticides such as Chlorpyrifos, are hazardous chemicals for which health monitoring may be required. In this case, health monitoring is likely to be required for workers spraying and mixing the chemical if adequate controls are not used. However if adequate controls are in place and there is no risk to health, health monitoring may not be required. Workers not applying the insecticide, such as thinners, pruners and pickers, would not need health monitoring provided recommended re-entry periods are observed and spraying is not carried out near them when they are working.

#Chemical Risks2

LABELLING OF WORKPLACE

HAZARDOUS CHEMICALS

Code of Practice - SEPTEMBER 2015

- A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers Council on 10 August 2011.
- A copy of this code is included for download in CCCVaT's website along with other codes referred to in this Workplace Health and Safety Manual which have not be published in this document.
- The reason this Code of Practice was not published in this document was due to its worth to Churches. That is not to imply that it is not relevant and should the Church intend to decant chemicals into other containers, it should be referred to before embarking on this exercise.

#Chemical Risks3

PREPARATION OF SAFETY DATA SHEETS

FOR HAZARDOUS CHEMICALS

Code of Practice - FEBRUARY 2016

- A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers Council on 10 August 2011.
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Child Protection Child Safety Toolkit

CHILD SAFETY TOOLKIT

How to create a Child Safe Organisation

APRIL 2018 Edition

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FORWARD

This Child Safety Toolkit has been prepared by Moores Legal Pty Ltd and published by Our Community and is intended for you to read, utilise and share with others: if you do so, please provide attribution as follows: 'This document is based on the Child Safety Toolkit created by Moores Legal Pty Ltd and published by Our Community.' The Child Safety Toolkit may not be reproduced, modified or adapted, in part or in whole, for commercial purposes or for republication.

1. INTRODUCTION - EVERY CHILD DESERVES TO BE SAFE.

If there's one thing that's now very clear it's that we all have a role to play in preventing and responding to child abuse, and we all must play a part – because it's the law, because we need to protect our organisations from financial and reputational damage, but mostly because it's the right thing to do. The Child Safety Toolkit has been created by Moores and Our Community as part of our shared commitment to promoting child safety, preventing child abuse and helping organisations comply with the complex web of legislation in this area. The toolkit is designed to be read by school council members, principals and senior teachers, as well as board/committee members and senior managers of any not-for-profit organisation that works with children, though anyone can and should take it upon themselves to ensure every organisation is acting in the best interest of children in our community.

There's so much at stake when organisations get it wrong. Conversely, those that face the issue head on with tenacity, courage and wisdom have an invaluable opportunity to prevent abuse and contribute to the healing of those who have suffered.

This toolkit has highlighted the risks we run by failing to act to protect children within our care, and the practical things every one of us can do to mitigate those risks. We are determined to bring about change."

2. ESTABLISHING A CHILD SAFE ENVIRONMENT:

To ensure compliance with the law and protection of children within the care of your organisation you must immediately:

- Implement a child-safe policy or statement of commitment to child safety – see our sample in the appendix.
- Put in place strategies to promote the participation and empowerment of children and their families.
- Put in place a code of conduct that establishes clear expectations for appropriate behaviour with children – see our sample in the appendix;
- Create and embed screening, supervision, training and other human resources practices that reduce the risk of child abuse by new and existing personnel.
- Put in place strategies for identifying and reducing or removing risks of child abuse.
- Codify mandatory and voluntary processes for responding to and reporting suspected child abuse.
- Document the strategies your organisation has employed to prevent child abuse (training provided to staff, policy review schedule, etc).

This toolkit provides advice and practical tools to help you achieve all the strategies outline above.

However, it's important to note that the most important thing you can do is to embed an organisation-wide commitment to the protection of children. This must be led from the top and you must encourage and foster a culture of proactively dealing with and reporting concerns relating to child safety. These practices too are fleshed out in greater detail in this toolkit

2.1 THE SOCIAL AND LEGAL CONTEXT:

Recent federal and state-based initiatives have highlighted the responsibility of not-for-profit organisations to play a role in preventing and appropriately responding to child abuse. Understanding the context and findings of these inquiries (including the ones outside your organisation's own home state) will help you understand your risks and legal responsibilities and assist you to prepare appropriate policies and procedures for your organisation.

2.2 ROYAL COMMISSION INTO INSTITUTIONAL RESPONSES TO CHILD SEXUAL ABUSE:

On January 11, 2013 the Australian Government established the Royal Commission into Institutional Responses to Child Sexual Abuse to look into how institutions have responded to allegations and instances of child sexual abuse.

The Royal Commission was asked to determine:

- What institutions and governments should do to better protect children against child sexual abuse;
- What institutions and governments should do to encourage the reporting of child sexual abuse;
- What should be done to eliminate or reduce barriers to responding appropriately to child sexual abuse; and
- What institutions and governments should do to address past and future child sexual abuse.

The Royal Commission called for submissions from both individuals and organisations, with 57 public hearings and 7641 private sessions conducted up to November 1, 2017.

The final report was released on December 15, 2017. Some of the key themes from the report are outlined below:

- The old mentality that children should be "seen and not heard" is no longer appropriate (if it ever was). Families and institutions are encouraged to empower children to speak their minds, and to listen and respond appropriately to a child's concerns.

- A ‘head in the sand’ mentality is not acceptable when it comes to child safety. Organisations must take preventative action, and actively deal with any complaints in a timely and compassionate manner.
- It is not acceptable to put off taking action against an alleged perpetrator unless or until they have been charged with a criminal offence. Organisations need to take appropriate action as soon as a complaint is received.
- It is not appropriate to deal with a matter internally when you have real concerns that a criminal offence has been committed. All allegations of child abuse must be immediately reported to the police or other relevant authority.
- It is not acceptable to hand a matter over to the authorities and then wash your hands of it – your organisation must actively participate in the investigation process and follow up with regulatory bodies to ensure that the issue has been appropriately dealt with.

The Royal Commission made a series of recommendations for a number of industries, sectors and organisations. You can read our summaries of the recommendations here: http://www.moores.com.au/news/category/child-protection-safety

Importantly, the Royal Commission has recommended the introduction of a set of national standards to apply to all organisations dealing with children.

In the table below, we’ve itemised the Royal Commission’s recommended national Child Safe Standards. For comparison, we’ve shown Victoria’s existing standards (the only other state that contains similar standards in relation to child safety is South Australia, but their standards are more prescriptive and limited).

Royal Commission’s recommended Child Safe Standards	**Victoria’s legislated Child Safe Standards**
Child safety is embedded in institutional leadership, governance and culture	Strategies to embed an organisational culture of child safety, including through effective leadership arrangements (Standard 1)
Children participate in decisions affecting them and are taken seriously	Strategies to promote the participation and empowerment of children (Standard 7)
Families and communities are informed and involved	
Equity is upheld and diverse needs are taken into account	
People working with children are suitable and supported	Screening, supervision, training and other human resources practices that reduce the risk of child abuse by new and existing personnel (Standard 4)
Processes to respond to complaints of child sexual abuse are child focused	Processes for responding to and reporting suspected child abuse (Standard 5)
Staff are equipped with the knowledge, skills and awareness to keep children safe through continual education and training	Screening, supervision, training and other human resources practices that reduce the risk of child abuse by new and existing personnel (Standard 4)
Physical and online environments minimise the	Strategies to identify and reduce or remove risks of child

opportunity for abuse to occur	abuse (Standard 6)
Implementation of the Child Safe Standards is continuously reviewed and improved	
Policies and procedures document how the institution is child safe	A child safe policy or statement of commitment to child safety (Standard 2) A code of conduct that establishes clear expectations for appropriate behaviour with children (Standard 3)

The Royal Commission's recommendations are just that, recommendations, and therefore:

- The national standards will only come into effect if the Federal or State Government passes relevant legislation.
- It is not yet clear exactly how they will be rolled out.

The Federal Government announced in December 2017 that it would provide a full response to the Royal Commission's Final Report sometime in 2018. Once this response is provided, we will know a lot more about which recommendations will be enacted (including the national standards), and how this will affect community organisations.

The Royal Commission also released the following reports in the lead up to the final report:

- **Interim report (June 2014):**
- **Working with Children Checks report (August 2015):**
- **Redress and civil litigation report (September 2015):**
- **Creating child safe institutions (July 2016); and**
- **Criminal Justice report (August 2017).**

To view the above reports visit: https://www.childabuseroyalcommission.gov.au/other-reports

This toolkit contains advice for not-for- profit organisations derived from all of these sources, as well as our own experiences in advising not-for-profit organisations on these matters.

2.3 THE VICTORIAN INQUIRY INTO THE HANDLING OF CHILD ABUSE BY RELIGIOUS AND OTHER ORGANISATIONS:

In 2013 the Victorian Government asked the Family and Community Development Committee to investigate the handling of child abuse in religious and other non- governmental organisations.

The Inquiry into the Handling of Child Abuse by Religious and Other Organisations was directed to look at:

- The practices and policies in these organisations for handling allegations of child abuse.
- Whether there are systemic practices in these organisations that operate to discourage reporting of suspected child abuse.
- Whether changes to the law or to practices, policies and protocols in these organisations are required to prevent child abuse and to deal with allegations of child abuse.

The Committee received hundreds of written and oral submissions, and on November 13, 2013 tabled its final report in Parliament.

The report, Betrayal of Trust, was scathing of many of the organisations it analysed, stating that: "evidence to the Inquiry revealed that historically these organisations were often motivated by self-interest and the protection of the organisation.

This resulted in serious consequences for the safety and protection of children."

The report made more than a dozen recommendations to Parliament, including suggestions that the government:

- Strengthen the criminal law to include provisions such as compulsory reporting and a new grooming offence.
- Make it easier for victims to access the civil law, including the removal of time limits for making an application.
- Establish a new independent avenue for justice that operates outside the ordinary adversarial court system.

The report, and the government's response to the report, can be found at:
https://www.parliament.vic.gov.au/fcdc/article/1788

Victorian legislative changes based on the recommendations of the Committee. The Committee's recommendations led to substantial legislative changes, as outlined below.

☐ **Crimes Act 1958 (Vic)**

The Crimes Act was amended to include three new child safety offences. These include offences for:

- Grooming (maximum penalty of 10 years imprisonment);
- Failing to protect a child from becoming a victim to a sexual offence (maximum penalty of five years imprisonment).
- Failing to report (to the police) a reasonable belief that a sexual offence has been committed against a child (maximum penalty of three years imprisonment).

The above additions came into effect in Victoria between April 9, 2014 and July 1, 2015.

☐ **Child Wellbeing and Safety Amendment Act 2015 (Vic)**

The Victorian Government amended existing legislation to empower the Minister for Children and Early Childhood Development to ensure that 'applicable entities' adhere to standards to promote child safety, prevent child abuse and properly respond to allegations.

This power is far-reaching and applies to nearly all not-for-profits (and some for- profit organisations), including those in the following sectors:

- Education.
- Disability.
- Religious bodies.
- Housing services.
- Residential facilities of boarding schools.
- Coaching or tuition services.
- Counselling services.
- Cultural, sport or recreation groups / clubs / associations.
- Camps.
- Beauty competitions.
- Photography businesses.
- Babysitting services.
- Commercially or publicly funded transport services.
- Entertainment or party services.

- Care services (i.e. family day care, long day care, preschool & kindergartens).
- Children's services.
- Maternal and health care service providers.
- Mental health care services.
- Drug or alcohol treatment facilities.
- Family violence or sexual assault services.
- Support services for parents and families.
- Youth services.
- Local councils.

The amendments mandate that the organisations affected by this legislation must have in place:

- Strategies to embed an organisational culture of child safety, including effective leadership arrangements.
- A child-safe policy or statement of commitment to child safety.
- A code of conduct that establishes clear expectations for appropriate behaviour with children.
- Screening, supervision, training and other human resources practices that reduce the risk of child abuse by new and existing personnel.
- Processes for responding to and reporting suspected child abuse.
- Strategies to identify and reduce or remove risks of child abuse.
- Strategies to promote the participation and empowerment of children.

These obligations came into effect in two phases, applying to most Victorian not-for- profits from either January 1, 2016 or January 1, 2017.

Some practical tips on how your organisation can reflect these standards in your organisation's own practices and processes are provided in Part Four of this toolkit, as well as in Appendix Three.

☐ **Education and Training Reform Amendment (Child Safe Schools) Act 2015 (Vic)**

The Education Act amends existing legislation to:

- Establish a framework to require registered schools to take action to manage the risk of child abuse; and
- Strengthen the regulatory role of the Victorian Registration and Qualifications Authority.

All amendments came into force on December 21, 2015.

☐ **Wrongs Amendment (Organisational Child Abuse) Act 2016 (Vic)**

The Victorian Government amended existing legislation to reverse the onus of proof relating to child abuse offences. This means that organisations will need to prove that they took "reasonable precautions" to prevent child abuse, where previously the onus of proof was on the survivor of child abuse to prove that the organisation acted negligently and failed in its duty of care.

These changes came into effect on July 1, 2017. They apply to all organisations in Victoria that exercise care, supervision or authority over children.

The changes will likely have large ramifications on how Victorian organisations approach their child protection operations, given that the new law:

- Makes it more difficult (and costly) for organisations to successfully defend a child abuse claim.

- Requires organisations to keep detailed records of steps taken to prevent abuse, such as records of training provided to staff, regular policy reviews, and investigations of inappropriate conduct; and
- may increase the number of claims being initiated against organisations (i.e. as the barriers to bringing a claim are reduced).

2.4 OTHER STATE-BASED INQUIRIES:

There have been three other state-based inquiries into child abuse over recent years. These include:

- The Queensland Child Protection Commission of Inquiry, which was launched by the Queensland Government in July 2012 and concluded on July 1, 2013 (final report here);

  http://www.childprotectioninquiry.qld.gov.au/

- The Special Commission of Inquiry into Matters Relating to the Police Investigation of Certain Child Sexual Abuse Allegations in the Catholic Diocese of Maitland:

  https://www.dpc.nsw.gov.au/memos-and-circulars//scoi_child_sexual_abuse_allegations_in_the_hunter_region

Newcastle, which was announced by the New South Wales Government in November 2012 and concluded on May 30, 2014 (final report here);

- The Child Protection Systems Royal Commission, which was launched by the South Australian Government in August 2014, and concluded on August 5, 2016 (final report here).

  https://www.childprotection.sa.gov.au/department/child-protection-systems-royal-commission

  https://www.agd.sa.gov.au/projects-and-consultations/projects-archive/child-protection-systems-royal-commission

The NSW Inquiry concluded on May 30, 2014 and its final report can be found here. The SA Inquiry's final report is due on May 31, 2016.

https://www.dpc.nsw.gov.au/memos-and-circulars//scoi_child_sexual_abuse_allegations_in_the_hunter_region/release_of_report_of_special_commission_of_inquiry_into_matters_relating_to_the_investigation_of_certain_child_sexual_abuse_allegations_in_the_catholic_diocese_of_maitland-newcastle

3. LEGAL ASPECTS OF A CHILD ABUSE CLAIM: AN EXPLAINER

Child abuse claims can be extremely difficult for an organisation to navigate given the extremely sensitive nature of such claims, particularly if the claim relates to alleged conduct that took place many years ago.

Responding to historical allegations of child abuse usually requires organisations to adopt a survivor-oriented approach. This involves collaborating with the survivor (or their legal representative) in an informal settlement process to provide them with appropriate redress and healing. In practical terms

it requires balancing the interests of the survivor with the interests of the organisation and other people involved.

One of the main concerns for an organisation is whether it can be liable for the wrongful actions of other people (e.g. an employee, a volunteer, or another child in the organisation's care). There are three potential bases of asserting liability against an organisation:

- A breach of the general duty of care owed by an organisation to children to take reasonable precautions to keep them safe from harm (including from the risk of sexual abuse);
- A breach of a non-delegable duty of care to ensure all reasonable care is taken to ensure the children's safety, where the organisation engaged another to carry out the functions in question (as either an employee or a volunteer).

- Vicarious liability for the perpetrator's acts committed while acting in the course of their employment (or, possibly, as a volunteer).

The reality is the vast majority of child abuse claims against an organisation are settled prior to going to court, particularly if the claim relates to alleged conduct which took place many years ago. Whilst there is limited case law to draw on, we set out below further details regarding these legal concepts in the context of child abuse claims against an organisation.

3.1 DUTY OF CARE:

An organisation owes a duty of care to children to take reasonable steps to keep them safe from harm and provide a safe environment. To be found to have failed in this duty it must be established that a reasonable person in the position of the organisation would have taken precautions in response to a risk of harm to children (e.g. the risk of sexual assault), but that the organisation failed to take those precautions.

The precautions that a reasonable person would have taken depend on the standards to which reasonable people would have been held at the time of the alleged negligence.

In practical terms, in order to establish a breach of the duty of care, the plaintiff would need to prove that the organisation did not take all the necessary steps to protect children in its care and/or there were "warning signs" regarding the perpetrator's conduct (e.g. prior concerns of inappropriate behaviour) and that nothing was done in response.

3.2 NON-DELEGABLE DUTY OF CARE:

An organisation cannot absolve itself of its duty to take reasonable care in respect of children's safety by delegating the responsibility to someone else. It must ensure that any person (e.g. an employee) carrying out related tasks takes reasonable care.

3.3 VICARIOUS LIABILITY:

Vicarious liability refers to a person taking responsibility for another's action. For example, an employer will be vicariously liable for employees acting 'in the course of employment' (i.e. the organisation can be sued for the actions of its employees). Employees do not include "independent contractors" and are unlikely to include volunteers (although this depends on the circumstances in which they are engaged to act as volunteers).

Recent case law has established that organisations can be vicariously liable for the sexual abuse of children by employees. In Prince Alfred College Incorporated v ADC [2016] HCA 37, the High Court was asked to consider the extent to which a school could be vicariously liable for criminal child sexual abuse by an employee, in this case

a boarding master. The majority of the High Court held that the "relevant approach" to take when considering the issue of vicarious liability requires a careful examination of the actual role that the employer assigns

to the employee and the position in which the employee was thereby placed in relation to the victim. To determine whether the employment may be said to give the "occasion" for the wrongful act, the High Court said that it was necessary to consider the role's authority, power, trust, control and the ability the employee had to achieve intimacy with the victim.

3.4 LIMITATION DEFENCE:

Each state and territory has periods prescribed by statute within which a claim should be commenced, though Victoria and New South Wales have removed limitation periods for claims of historical child sexual abuse following recommendations from the Royal Commission.

3.5 COMMONWEALTH REDRESS SCHEME:

In the second half of 2016, the Australian Government announced a Commonwealth Redress Scheme for survivors of institutional child sexual abuse.

This announcement followed recommendations from the Royal Commission. At the time of writing, it is believed that the redress structure will be designed to:

- Achieve equal access and equal treatment for survivors.
- Provide the greatest efficiency in administration costs.
- Achieve better outcomes than those that could be achieved from separate state and territory schemes.

Survivors, survivor advocates and commentators have questioned the efficacy of the scheme, pointing out that states, territories and other non-government institutions will participate only on an opt-in basis. States, territories or institutions that do opt in will be required to fund the cost of their own eligible redress claims.

The Commonwealth does not have the power to force the states to participate in a national scheme; however, the government may have the power to compel the territories and has not ruled out legislating to compel their participation in the scheme.

The Commonwealth scheme is expected to be established during 2018 and to offer to survivors a monetary payment up to $150,000 (the Royal Commission recommended a maximum payment of $200,000). The scheme will also offer a personal response from the head of the relevant organisation for those survivors who seek it, and options to receive psychological counselling.

In our experience, most non-government institutions do focus on prioritising the needs of a survivor that makes a claim of child sexual abuse and make every effort to acknowledge any wrongdoing. Indeed, some larger institutions already have in place a sophisticated framework for survivors. For other institutions, however, it can be extremely challenging to handle child sexual abuse claims in a way that is fair and sensitive to the survivor. As such, we believe that the Commonwealth scheme will provide non-government institutions with a much- needed framework to provide redress and appropriately support survivors of abuse in a fair and respectful manner.

Moores recommends that all organisations formulate an organisational position with regard to the scheme, taking into consideration your organisation's values, any existing child safety response framework, and the messaging that your organisation wants to deliver to the community with regard to child safety.

4. CREATING THE RIGHT CULTURE:

At the conclusion of the Victorian inquiry, the Family and Community Development Committee stated that:

"…the process for responding to suspected criminal child abuse needs to be part of an organisation's culture, leadership and internal practices. The culture and senior management of an organisation must actively support the reporting of suspicions or allegations of criminal child abuse to the police and relevant authorities. The organisation must also have an ongoing commitment to reviewing and continuously improving its processes."

In line with these comments, and the legislative provisions recently introduced in Victoria (as set out in detail in Part Three), we recommend that organisations approach their culture on the following four fronts.

See also Appendix 3 for a list of practical steps your organisation can take to ensure a child-safe culture.

4.1 FROM THE TOP DOWN:

It is the responsibility of the board (or, in the case of schools, the school council) to ensure the organisation has the

appropriate policies, procedures and culture in place to both:

- Safeguard against the risk of child abuse.
- Respond effectively if abuse is suspected or confirmed.

Creating the right culture in your organisation will not be possible unless the board is conspicuously committed to ensuring a child-safe organisation.

In its submission to the Federal Government's Royal Commission, the Australian Children's Commissioners and Guardians (ACCG) – a network that aims to promote and protect the safety, wellbeing and rights of children and young people in Australia – set out a series of actions organisations can adopt in order to provide a child-safe environment. The principles provide a useful framework for boards and school councils looking to embed a child-safe culture. They are:

1. Take a preventative, proactive and participatory approach to child safety.
2. Implement child safety policies and procedures that support ongoing assessment and amelioration of risk.
3. Value and empower children to participate in decisions that affect their lives.
4. Foster a culture of openness that supports all persons to safely disclose risks of harm to children.
5. Respect diversity in cultures and child rearing practices while keeping child safety paramount;
6. Provide written guidance on appropriate conduct and behaviour towards children;
7. Engage only the most suitable people to work with children and have high-quality staff and volunteer supervision and professional development;
8. Ensure children know who to talk with if they are worried or are feeling unsafe, and that they are comfortable and encouraged to raise such issues;
9. Report suspected abuse, neglect or mistreatment promptly to the appropriate authorities;
10. Share information appropriately and lawfully with other organisations where the safety and wellbeing of children is at risk; and
11. Value the input of and communicate regularly with families and carers.

School councils and not-for-profit boards should publicly commit to these principles and should ensure that the organisation's strategic plans, vision, and mission statements include specific consideration of child strategy.

In addition, governing bodies should satisfy themselves that their organisation is adhering to all legislative requirements. See Part Six for the legislative obligations that are relevant in your state.

Policies and procedures:

The board should ensure the organisation has appropriate policies and procedures in place to promote child safety and reduce risk. A child-safe policy and a code of conduct are two essential documents for any organisation whose volunteers, employees or contractors come into contact with children.

Child-safe policy:

Your child-safe policy should be clearly worded and should include, at a minimum • a statement expressing the organisation's commitment to child safety;

- A definition of what constitutes child abuse.
- Procedures and decision-making processes that surround the organisation's interactions and involvement with children.
- An outline of your organisation's recruitment and supervision processes.
- Processes for identifying and managing child abuse risks.

- Processes for reporting and handling child abuse concerns and complaints.
- Processes for managing communication about suspected or actual child abuse, both internally and externally.
- A description of the roles and responsibilities of personnel involved in protecting children, including the duty of care of the board, management, staff and volunteers.
- A statement setting out the organisation's commitment to honouring different cultural traditions when protecting children.
- A statement setting out the organisation's commitment to the safety of children with a disability.
- Information about how the policy is implemented, governed and reviewed.

A sample policy covering all the points above is available as Appendix 1.

Code of conduct

The board should also ensure the organisation has an up-to-date code of conduct that includes:

- Clear and specific standards of conduct for working with children in different situations relevant to the organisation (e.g. where carers are looking after children with disabilities who may require soothing or restraining);
- Clear expectations of appropriate relationships with children for staff, volunteers and families (e.g. when it is appropriate for there to be physical contact, social media boundaries, etc.);
- Instructions on how adults should respond to any risks adults may pose to children, or that children may pose to each other;
- Guidance about how inappropriate conduct (or conduct that is not consistent with any legislation or code) should be reported;
- Recognition of the needs of children from culturally and/or linguistically diverse backgrounds; and
- Recognition of the needs of children with a disability and appropriate behaviour and relationships for personnel and children (e.g. appropriate ways to physically and emotionally assist a child with a disability).

A sample code of conduct is supplied as Appendix 2.

4.2 IMPLEMENTING CHILD-SAFE POLICIES AND PROCEDURES:

As the Victorian Inquiry's Betrayal of Trust report highlighted, merely having policies in place does not guarantee child safety.

Organisations must ensure all relevant people (volunteers, contractors and staff) have the knowledge, skills and capability required to create, implement and follow appropriate systems and processes.

It's generally not enough to communicate the existence of policies and procedures; training is required as well. You might have the capacity to deliver this training internally. If not, Moores can provide child-safe training in a manner and style that best suits the operational needs of your organisation.

Your organisation also needs to have in place processes for regularly reviewing and refining policies and procedures to ensure that your organisation is compliant with:

- All mandatory processes for responding to and reporting suspected child abuse;
- Any new child safety standards (as this area is regularly evolving).
- Any other legislative changes surrounding child safety.

Some strategies for doing this include:

- Signing up to receive Moores' news updates, and/or Our Community's Our Community Matters e-newsletter – both publications contain regular updates about legal and other changes affecting Australian not-for-profit

organisations and schools;

- Making diary notes (e.g. in one or several managers' electronic calendars, and/or the board calendar) to review legislation in this area at least annually and update policies accordingly;
- Become a Moores Not-for-Profit Assist member – this gives your organisation access to on-call legal assistance and a complimentary legal health check, which includes examination of your compliance with child protection legislation. Find out more at: http://www.communitydirectors.com.au/icda/legalhelp/

5. EMPOWERING CHILDREN:

Organisations where children and young adults feel free to question and speak up are, in our experience, the most child-safe organisations of all. Through your organisation's policies, as well as the behaviour of its leaders and staff, children should be encouraged to come forward with questions or concerns about adult behaviour.

There are a number of ways to empower children within your organisation to speak up about both child abuse and behaviour that might lead to child abuse. These steps include:

- Ensuring all relevant policies / procedures are developed in conjunction with children, written in plain English and made publicly available online.
- Making sure children know that your organisation cares about their feelings and safety – by exhibiting child-friendly posters and statements of your values, for example;
- Discussing with children under your organisation's care or supervision the relevant policies and procedures, and providing practical examples of situations which might/would be necessary for children to disclose;
- Making a strong commitment to children's participation (i.e. being inclusive of all children) and providing staff with resources that support participation;
- Building children's confidence and assisting them to develop skills for participation, such as communication skills.
- Matching participation methods to the age, capabilities and background of the children and being adaptive to their ways of working;
- Creating opportunities for children to be involved in policy and program development, implementation and review, including being honest with children about the extent of their involvement, and giving feedback on how their views have been actioned;
- Establishing pathways and mechanisms (e.g. opportunities for children to communicate with and get to trust a variety of adults, etc.) which enable children to raise concerns safely and with confidence.
- Using inclusive and empowering, child- friendly language in everyday activities and relevant written documents.

CASE STUDY

Moores advised a school that discovered a staff member was acting inappropriately.

The behaviour was only uncovered because a student asked a school counsellor whether it was appropriate for a teacher to send her text messages at 10pm at night.

Because this student felt comfortable to come forward with her concerns, the school was able to step in immediately and address the behaviour to protect this student.

Whilst adults within your organisation must be alert to the warning signs of grooming and child sexual abuse, providing children in the care of your organisation with appropriate education about their bodies and personal boundaries will further strengthen your organisation's child protection strategy.

Education may take place face to face (e.g. in a classroom setting) or via documented resources. We recommend that

an appropriately qualified individual (such as a child psychologist or child counsellor with training expertise) provide this type of education.

The sorts of topics usually covered in such training include:

- Naming body parts – encouraging children to use proper names for body parts and explaining that certain parts are private.
- Secrets – talking to children about the differences between a good secret and a bad secret, the importance of not keeping secrets from parents, how to be alert for tricks and bribes.
- Safe and not-safe touches – an explanation about the difference between 'safe touches' and touches to private parts or those that make a child feel mad, upset or confused.
- It's OK to tell – reinforcing to children that they will never get in trouble for telling trusted adults that someone touched them or did something that they were not comfortable about.
- Adults aren't always right – explaining to children that some adults can do wrong things and it's important they let another adult know if they are worried about something.

WHAT IS'GROOMING'?

Perpetrators of child sexual abuse can be predatory in nature, drawing victims to them by using calculated 'grooming' tactics. Grooming refers to actions deliberately undertaken to befriend and influence a child (and, in some circumstances, members of the child's family) with the intention of achieving a criminal objective of sexual activity withchildren.

Grooming can occur in person or online (e.g. via Facebook) and is designed to help the perpetrator establish an emotional connectionin order to lower the child's inhibitions.

Ensuring your organisations' staff and volunteers understand the warning signs of grooming will make it far more likely that managers will be able to detect and respond to potential child sexual abuse.

In most states and territories of Australia, procuring or grooming a child for 'unlawful sexual activity' is a sexual offence and must be reported to the police.

- Feelings and instincts – helping children to identify and talk about their feelings, encouraging them to trust their instincts, and telling them how to get help.
- Trusted adults – ensuring that children know who they can go to when they have a question or concern (there should always be a number of nominated personnel specified).
- Communication – encouraging open communication and discussions about experiences and feelings.

Children should also be provided with education about cyber safety to protect them against online grooming by predatory individuals. For example, many organisations do not allow staff or volunteers to be 'friends' on Facebook or other social media with children in their care. If this is the case in your organisation, this should be explained to students so that they can identify inappropriate behaviour if/as it arises. If your organisation does allow interaction via social media, you should educate both adults and children about expected behaviours and boundaries.

6. ENABLING DISCLOSURE:

In line with the robust statements made by the federal Royal Commission and the Victorian inquiry, an organisation should seek to foster a culture that encourages all children and adults to speak up about any concerns regarding a child's wellbeing.

The following statement from the royal commission's interim report highlights this point:

"It is apparent that perpetrators are more likely to offend when an institution lacks the appropriate culture and is not managed with the protection of children as a high priority."

The victorian betrayal of trust report echoed this point, saying:

"Although having a process that requires personnel to report allegations or suspicions to management is important, there is also a need to ensure that the culture of the organisation supports such disclosures."

Child-safe organisations are those that foster and demonstrate openness in multiple ways. This helps to create a culture whereby all persons (including staff, contractors, volunteers, parents/carers and children) feel confident and comfortable to disclose to management any of their child safety concerns.

6.1 strategies that help to create such a culture include:

- Having management lead by example and establish an honest two-way communication between themselves and others. Management should take the time to listen to others and encourage the expression of different viewpoints.
- Insisting that all interactions between staff, volunteers, parents/carers and children are respectful.
- Talking openly and honestly, where appropriate, about any past issues, alongside steps that have been taken to ensure those issues do not occur again.
- Treating personal information confidentially and respecting individuals' privacy.
- Being open and transparent with parents and children about the organisation's privacy practices. This might include informing children that their counselling records could be accessed by others in certain circumstances.

As recommended by the Victorian Government, organisations should clearly communicate child safety policies and procedures to all staff, volunteers, children and families, and publish policies for child safety on the organisation's website.

6.2 PROTECTION FOR REPORTERS:

All Australian states and territories have enacted legislation that protects individuals who make reports about suspected child abuse in good faith. 'Good faith' means the reporter has a valid and reasonable concern and is acting without malice or retaliation towards the alleged offender.

CASE STUDY

Jill is a youth worker. One afternoon a child reports to Jill that his dad beats him with a belt. Jill reports this information to the child safety officer within her organisation and also makes a report to the Department of Health and Human Services (DHHS). DHHS contacts the parents of the child to discuss the report.

The parents are furious that the report was made by a representative of the organisation without their knowledge. Jill's boss is embarrassed and concerned that the parents

will withdraw vital funding from the organisation. Jill's boss wants togive Jill a warning letter for making the report to DHHS.

However, upon contacting Moores, the organisation is informed that Jill has a right (and indeed an obligation) to report her concerns and that her actions in making the report are legally protected. As such, Jill cannot be disciplined and the organisation must now ensure that Jill's boss is given training on child protection legislation and the organisation's internal policies and procedures should be reviewed to ensure that they deal with childsafety.

These protections ensure that the report:

- Cannot result in the reporter being seen as unprofessional or having breached professional ethics.
- Does not make the reporter liable for any disciplinary or legal action (including in cases that are not proven).

As a child-safe organisation you should ensure that everyone (including board members/school council members, managers, staff, volunteers, contractors, counsellors, youth workers, chaplains, carers, parents and children – everyone) is made aware of their rights to report any concerns that they have of inappropriate behaviour towards children, and that they will not suffer any professional or legal consequences so long as they report in good faith.

Reports need to be made internally and externally in line with the organisation's policies and procedures and the applicable state-based legislation (see Part Six for details of reporting channels).

As recommended by the Victorian Government, organisations should promote a confidential reporting culture that respects individual privacy while maintaining adequate records of child safety issues.

All organisations other than the very smallest should appoint an appropriately trained child safety officer/champion.

6.3 HOW TO RESPOND TO LEADERS WHO DON'T SUPPORT CHILD SAFETY:

We do not assume that everyone reading this Toolkit will be a CEO, director or board/ committee member. Some will be interested parents, employees, volunteers or contractors – a person who either seeks to prevent child abuse from occurring, or has seen something in their organisation that concerns them.

Whatever your role, we strongly commend you on your commitment to protect children.

Organisations depend on people like you to provide a safe environment for children. We all have a role to play.

We would, however, like to warn you that you may not always find support when it comes to ensuring safe places for children. How do we know? Moores lawyers have too often heard statements such as the following, which we regard as red flags:

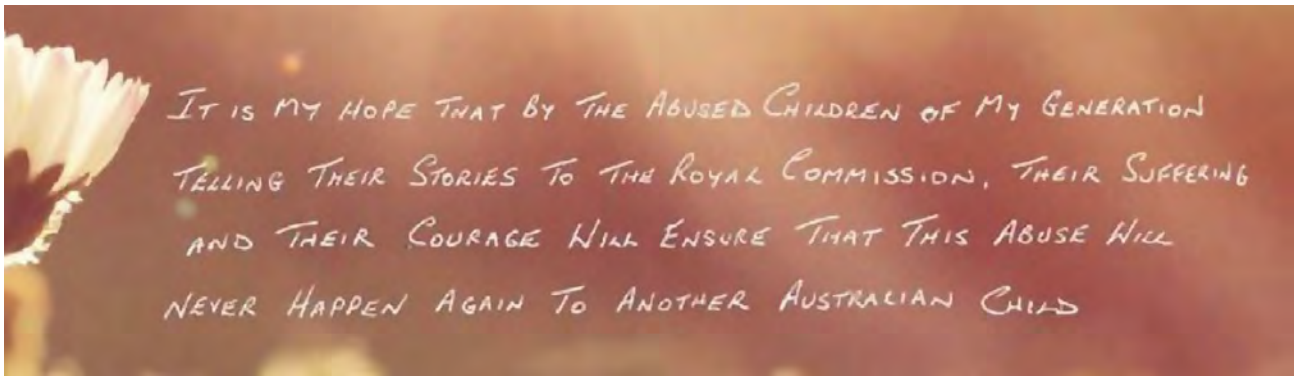
- "We don't have paedophiles here, we all believe in the values and mission of the organisation."
- "We are a religious organisation. God protects us from people that would hurt children."
- "Everyone within the organisation has been with us for decades. We have no reason to mistrust them."
- "This isn't a big issue for us, we are more worried about staying financially viable at this point."

Leaders who use phrases like these often have a tendency to push back on attempts to introduce appropriate safeguards for children. No two leaders will be identical, and their reasons for pushing back may be a mystery.

However, there are many different angles you can try to get them onside. Here are some pointers to help you influence decision- makers to ensure a child-safe space:

- The financial approach: Many insurance companies are now requiring compliance with child safety laws and will either charge an organisation high premiums if there isn't compliance, or refuse to provide coverage to an organisation that doesn't comply. Further, to be able to defend a claim or minimise liability, you need to be able to demonstrate compliance, which means having in place a policy, reporting procedure and regular training. It makes financial sense to comply.
- We're all in this together: Child safety laws apply to all organisations that work with children, which means everyone has to put in the time and effort to get themselves up to speed. Failing to comply will put your organisation at a disadvantage compared with its peers, while the alternative will allow you to position your organisation as a leader.
- Highlighting your important work: Your organisation can use its steps to comply with new child safety legislation as an excuse to communicate with the community about all the positive work you are doing with and for children.

This message can be conveyed to great effect to the community at large, clients/ partners, influencers (such as MPs and peak bodies in your sector) and potential funders



7. CHILD-SAFE RECRUITMENT:

A crucial part of establishing and maintaining a safe environment for children is ensuring that the most suitable people are recruited to work and volunteer with children, and that unsuitable people are screened out.

It is common for not-for-profit organisations, particularly smaller entities, to feel overwhelmed by the risk and responsibility of ensuring a child-safe environment. However, introducing simple child safety measures within your organisation can produce significant results. For example, by simply adding a zero-tolerance message to your job descriptions and advertisements, you can reduce the risk of child abuse occurring within your organisation.

The following five steps will help ensure child safety through pre- employment screening.

7.1 IMPLEMENT ROBUST RECRUITMENT AND SELECTION PROCEDURES:

Implementing robust recruitment and selection procedures will help you identify the most suitable people for any given role. This becomes crucial in roles that involve working with children, where strong procedures will also deter unsuitable people from applying for any paid or voluntary position.

Recruitment and selection policies and procedures should reflect the organisation's understanding of and commitment to a child-safe environment. During the recruitment process, candidates should be provided with access to the organisation's Child-Safe Policy and Code of Conduct. Clearly articulating acceptable behaviour from the very start of a person's involvement with your organisation will communicate to candidates that the organisation is committed to child safety.

Importantly, organisations should have documented and structured recruitment procedures for all positions, including paid, volunteer, board and executive positions.

No employee, contractor or volunteer, however senior or junior, should be able to find a “back door” into your organisation. Appropriate procedures are discussed below.

7.2 ENSURE YOUR JOB DESCRIPTIONS AND ADVERTISEMENTS HAVE A CLEAR: CHILD-SAFE MESSAGE

Your first step in preparing to recruit for a position that involves contact with children should be to undertake an analysis of the position. It is crucial to know and understand the exact skills required and the potential risk posed to children. This will allow you to develop a clear job description that defines the roles, tasks, and desirable skills and experience required.

Analysing the position will also help the organisation develop key selection criteria. These will form the measures against which you assess each applicant during the recruitment process. Interview questions should then be formulated based on the selection criteria and risk analysis.

Getting the wording right:

An explicit statement of commitment to child safety should be included in all advertisements and job descriptions to discourage unsuitable people from applying; for example:

Our organisation is committed to child safety. We have zero tolerance of child abuse. Our robust human resources, recruitment and vetting practices are strictly adhered to during the application and interviewing process. Applicants should be aware that we carry out working with children, police records and reference checks (as we see fit) to ensure that we are recruiting the right people.

And here’s an example of what to use in your job descriptions:

As part of your role, you will be working with [children / people with a disability / people who are vulnerable etc.]. It is your obligation to always ensure their safety and report any concerns that you have, in line with our duty of care obligations. You will be required to regularly provide the necessary working with children, police records and reference checks. We have zero tolerance when it comes to abuse of any kind and will take disciplinary action, including and up to termination of employment, should we determine that abuse has taken place or there has been a failure to report any suspected or alleged abuse.

Another simple and effective way to convey your organisation’s commitment to child safety and to deter the wrong people from applying to work in your organisation is to display a message of zero tolerance on your website and even in your reception space. Something such as this can send a strong message: “Our organisation is committed to child safety. We have zero tolerance of child abuse.”

7.3 CARRY OUT MULTIPLE SELECTION AND SCREENING ACTIVITIES

Multiple selection and screening activities should be carried out during the recruitment phase of a child-related position, including:

- Conducting structured interviews;
- Conducting reference checks, Google & other online searches; and
- Conducting Working with Children Checks

These aspects of the recruitment process are discussed in detail below.

Interviews

It is recommended that interviews be conducted by a panel of at least three suitably trained people, where possible, to provide for a diversity of viewpoints and opinions. We recommend that at least one interviewer have an understanding of the dynamics of child abuse and the typical behaviours of child offenders. This will help the panel to identify ‘red-flags’ or warnings.

The primary challenge of an interview is to gain an accurate sense of who the candidate is, their values and attitudes, and how they are likely to perform in the job. The interview should include a range of behavioural and values-based

questions designed to elicit information that will help the panel determine the candidate's suitability for the position and uncover any potential risks to children. Ensure each interview includes:

- Discussion of the candidate's motivation for working with children.
- Exploration of the candidate's understanding of child abuse in institutional settings, including their understanding of how it occurs and what can be done to prevent it; and
- Exploration of the candidate's work history, including prior positions held, their responsibilities, and their reasons for leaving (especially where the candidate's previous roles involved working with children). Explore any gaps in work history or gaps in the candidate's resume.

The panel should:

- Pay particular attention to any answers that suggest a lack of professional boundaries around working with children (for example, lax social media boundaries).
- Probe further if the candidate's answers are incomplete or concerning, and cross check any concerns with referees & LinkedIn contacts.
- Consider whether there is an unusual context for this candidate to be seeking employment with children.

Reference checks:

Reference checks with a candidate's recent employers can help the organisation make an informed decision about his or her suitability to work with children.

A minimum of two verbal reference checks should be conducted. Accepting letters of reference is not advised without follow-up conversations.

It is important to conduct reference checks with employers who have directly supervised the candidate and observed their interactions with children. Referees should be asked directly for information on the candidate's character and whether the referee has any concerns regarding the candidate working with children.

It's also recommended that Google searches be undertaken. While it's not advisable to believe everything you read on the internet, web searches are very quick and can in some cases help you to uncover red flags about a candidate's past history.

Working with Children Check schemes:

A person wishing to engage in child-related work must comply with the working with children laws operating in the state or territory in which they operate. These schemes are designed to help organisations assess the level of risk an applicant may pose to children if they were engaged in child-related work.

However, as was made abundantly clear by the federal Royal Commission, working with children checks should be only be one part of an organisation's recruitment, selection and screening practices. A working with children check will not make an organisation a safe place for children – they must be used alongside broader child-safe strategies (as set out elsewhere in this toolkit).

There is no Commonwealth working with children scheme. Each state and territory in Australia has its own scheme. The core elements of each scheme are similar, but each scheme has distinct requirements and operates in a particular way. All jurisdictions consider a person's criminal history, although the specific type of criminal history considered may vary.

Australia has three types of checks for child - related work:

- **Working with Children Checks (WWCC):**
    - WWCCs involve checking a person's criminal history and, in some jurisdictions, disciplinary information to determine their suitability to engage in child-related work. Successful applicants are granted a clearance, which they can use as evidence of their suitability to engage in child-related work for a specified period.
    - WWCCs are used in New South Wales, the Northern Territory, Queensland, Victoria and Western Australia.

NB: Victoria introduced changes to its WWCC system on August 1, 2017 and removed supervision as an exemption. We therefore recommend that all Victorian organisations revisit their WWCC policy / practice to ensure that they are still compliant. See here for further information about the changes in Victoria:

http://www.workingwithchildren.vic.gov.au/home/about+the+check/purpose/changes+to+legislation/

- **Working with Vulnerable People (WWVP):**
  - WWVPs are similar to WWCCs. WWVPs assess a person's suitability to work with vulnerable people in regulated activities. Children and disadvantaged adults (such as adults with a disability and adults who cannot communicate in English) are considered vulnerable people.
  - The Australian Capital Territory and Tasmania have implemented WWVP schemes.
- **Criminal history assessments:**
  - Under this type of check, organisations must ensure criminal history assessments are conducted before engaging people to work in particular positions. The onus is on the organisation to ensure the assessments are undertaken, not the individual.
  - Criminal history checks are not monitored on an ongoing basis as they are in other jurisdictions, they are a point-in-time check only. Employers must ensure that assessments are conducted at least once every three years.
  - South Australia is the only jurisdiction utilising criminal history assessments for child-related work.

To conduct a national police check visit: https://cccvat.com.au/church-support/crimcheck

This table sets out the various schemes in place across Australia.

	Working with children checks	Working with vulnerable people	Criminal history assessments	Blue card
ACT		https://www.accesscanberra.act.gov.au/app/answers/detail/a_id/1804/kw/wwvp		
NSW	http://www.kidsguardian.nsw.gov.au/working-with-children/working-with-children-check			
NT	https://nt.gov.au/emergency/community-safety/apply-for-a-working-with-children-clearance			
SA			https://screening.dcsi.sa.gov.au/	
QLD	https://www.bluecard.qld.gov.au			https://www.blueccard.qld.gov.au/
TAS		http://www.justice.tas.gov.au/working_with_children		
VIC	http://www.workingwithchildren.vic.gov.au			
WA	https://workingwithchildren.wa.gov.au/			

7.4 PUT IN PLACE A CHILD-SAFE EMPLOYMENT/VOLUNTEER CONTRACT:

The employment contract signed by staff, and the engagement documentation for volunteers and contractors, must make it clear that proven breaches of the organisation's policies and procedures, and breaches of the organisation's Code of Conduct, will be regarded as serious matters attracting administrative sanctions ranging from reprimand to dismissal.

As the Victorian Government recommends, organisations should also build responsibility for embedding an organisational culture of child safety into performance arrangements and position descriptions for senior staff.

7.5 INCLUDE CHILD SAFETY ISSUES IN INDUCTION TRAINING

Organisations should provide induction training that covers how to recognise and respond to child abuse, in line with Victorian Government recommendations. This should be done for all personnel, including volunteers and staff at leadership levels.

8. MANDATORY AND VOLUNTARY REPOTING OBLIGATIONS:

Every state and territory has enacted legislation prescribing both mandatory and voluntary reporting obligations. It's essential that all senior managers are on top of all applicable laws to ensure that all employees (and volunteers) are aware of their obligations.

It is best practice for all Australian organisations that work with children to develop procedures for responding to any report of suspected or actual child abuse. These procedures should comply with set reporting laws operating in your state and should also include provisions regarding voluntary reporting.

Mandatory reporting obligations

Your procedures should include provisions in line with the mandatory reporting laws relevant to the state or territory in which your organisation operates (if your organisation operates in multiple states, consider including a table like that set out on the following page).

The table sets out the key features of each state and territory's mandatory reporting duties.

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
ACT	**Children and Young People Act 2008 (ACT)**	• Doctors, nurses, enrolled nurses, midwives. • Dentists. • Teachers (including assistant teachers) and people providing education to a child or young person who is registered for home education under the Education Act 2004 • Police officers. • School counsellors. • People caring for a child at a child care centre. • People coordinating or monitoring home-based care for a family day care scheme proprietor. • Public servants who work with children and young people or families. • The public advocate.	A mandated reporter must make a report if: • The person believes on reasonable grounds that a child or young person has experienced, or is experiencing, sexual abuse or non-accidental physical injury. • That belief is formed in the course of the person's work. **NB:** exceptions may apply.	A person under 12 years old **NB:** A 'young person' is a person who is 12 years old or older, but not yet 18 years old.

		• An official visitor (i.e. someone authorised to be on the premises). • A person who, in the course of their employment, has contact with or provides services to children, young people and their families		
	Ombudsman Act 1989 (ACT)	The head (i.e. CEO, Principal etc.) of a designated entity. A designated entity means: • An administrative unit that deals with the safety, welfare or wellbeing of a particular child or class of children. • A health service provider. • A government school or a non-government school. • A provider of an education and care service. • A childcare service. • An approved kinship and foster care organisation. • An approved residential care organisation. • Any other entity prescribed by regulation.	A mandated reporter must provide a written report to the Ombudsman if they become aware of a reportable allegation or any reportable conviction involving an employee, volunteer or contractor of the entity.	A person under 18 years old.

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
NSW	**Children and Young Persons (Care and Protection) Act 1998 (NSW)**	A person who, in the course of his or her professional work or other paid employment, delivers health care, welfare, education, children's services, residential services or law enforcement, wholly or partly, to children. A person who holds a management position in an organisation, the duties of which include direct responsibility for, or direct supervision of, the provision of health care, welfare, education, children's services, residential services or law enforcement, wholly or partly, to children.	A mandated reporter must make a report to the Department of Family and Community Services if: • They have reasonable grounds to suspect that a child is "at risk of significant harm"; and • Those grounds arise during the course of or from the person's work. **NB:** exceptions may apply.	A person under 16 years old
	Crimes Act 1900 (NSW)	Any person	A mandated reporter must make a report to the police if: • The person knows or believes that a serious indictable offence has been committed (i.e. child abuse); and • Their information might be of assistance to police in apprehending, prosecuting or convicting the offender. **NB**: exceptions may apply.	A person under 18 years old

	Domestic and Family Violence Act (NT)	The head of a designated government or non-government agency. A designated non-government agency includes non-government schools, organisations that provide out-of-home care or substitute residential care for children, approved education and care services, and affiliated health organisations within the meaning of the Health Services Act 1997 (NSW).	A mandated reporter must make a report to the Ombudsman if they become aware of a reportable allegation or reportable conviction against an employee, volunteer or contractor of the agency.	A person under 18 years old
NT		Any person	A mandated reporter must make a report to the Department of Health and Families or the police if the person believes on reasonable grounds that: • A child under 18 years old has suffered or is likely to suffer harm or exploitation; or • A child under 14 years old has been or is likely to be a victim of a sexual offence; or • A child under 18 years old had been or is likely to be a victim of a sexual offence occurring in the context of a special care relationship. **NB:** exceptions may apply.	

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
	Care and Protection of Children Act 2007 (NT)	In the NT, there are additional reporting obligations on 'registered health practitioners'. Registered health practitioners include Aboriginal health workers, chiropractors, dentists, dental hygienists, dental prosthetists, dental specialists, dental therapists, medical practitioners, midwives, registered nurses authorised to practice midwifery, registered and enrolled nurses, occupational therapists; optometrists; osteopaths; pharmacists, physiotherapists, psychologists and radiographers.	A registered health practitioner is under additional reporting obligations and must make a report if: • They believe on reasonable grounds that a child aged 14 or 15 years old has been or is likely to be a victim of a sexual offence; and • The age difference between the child and the sexual offender is greater than two years. **NB:** exceptions may apply.	A person under 18 years old
	Domestic and Family Violence Act (NT)	A person.	A mandated reporter must make a report if the person believes on reasonable grounds that the life or safety of a person (i.e. a child) is under serious or imminent threat because domestic violence has been, is being or is about to be committed. **NB:** exceptions may apply.	A person under 18 years old

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
QLD	**Child Protection Act 1999 (QLD):**	Teachers (specifically, approved teachers under the Education [Queensland College of Teachers] Act 2005, employed at a school) Doctors. Registered nurses. Police officers with child protection responsibilities. A person performing a child advocate function under the Public Guardian Act 2014. Child Safety employees. Licenced care services employees.	A mandated reporter must make a report if: They form a reasonable suspicion that a child has suffered, is suffering or is at an unacceptable risk of suffering significant harm caused by physical or sexual abuse; and The child may not have a parent able and willing to protect the child from the harm. **NB:** exceptions may apply.	A person under 18 years old
	Education (General Provisions) Act 2006 (Qld):	Staff members at a school.	A mandated reporter must make a report if they reasonably suspect, in the course of their employment at the school, that: A student under 18 years old attending the school has been or is likely to be sexually abused by another person; A pre-preparatory age child registered in a pre-preparatory learning program at the school or a distance education pre- preparatory learning program at the school; or A person with a disability who is being provided with special education at the school and is not enrolled in the preparatory year at the school. **NB:** exceptions may apply.	

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
SA	Children's Protection Act 1993 (SA)	• Doctors. • Pharmacists. • Registered or enrolled nurses. • Dentists. • Psychologists. • Police officers and community corrections officers. • Social workers. • Teachers in education institutions including kindergartens. • Family day care providers. • Employees/volunteers in a government department, agency or instrumentality, or a local government or non-government agency that provides health, welfare, education, sporting. • or recreational, child care or residential services wholly or partly for children. • Ministers of religion (with the exception of disclosures made in the confessional) and employees or volunteers in a religious or spiritual organisation.	A mandated reporter must make a report to the Department of Education and Child Development if: • They have reasonable grounds to suspect that a child has been or is being abused or neglected; and • The suspicion is formed in the course of the person's work (whether paid or voluntary) or carrying out of their official duties. **NB:** exceptions may apply.	A person under 18 years old

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
TAS	**Children, Young Persons and Their Families Act 1997 (TAS)**	• Registered medical practitioners • Nurses and midwives • Dentists, dental therapists or dental hygienists • Registered psychologists • Police officers and probation officers • Principals and teachers • Persons who provide child care • Persons involved in the management of a child care service licensed under the Child Care Act 2001 • Employees or volunteers of government agencies that provide health, welfare, education, child care or residential services for children, and organisations that receive any funding from the Australian Government for the provision of such services • Any other person of a class determined by the relevant government Minister by notice in the Tasmanian Government Gazette	A mandated reporter must make a report to the Department of Health and Human Services or a Community-Based Intake Service if, in the course of carrying out their official duties: • They believe or suspect on reasonable grounds, or know that a child has been or is being abused or neglected; or • There is a reasonable likelihood of a child being killed or abused or neglected by a person with whom the child resides. This also applies to unborn children. **NB:** exceptions may apply	A person under 18 years old

VIC	**Crimes Act 1958 (Vic)**	Any person 18 years or older	A mandated reporter must make a report to the police if they form a reasonable belief that a sexual offence has been committed in Victoria against a child by another person of or over the age of 18 years. **NB:** exceptions may apply.	A person under 16 years old
	Children, Youth and Families Act 2005 (Vic)	• Registered medical practitioners, midwives and registered nurses • Teachers registered or granted permission to teach under the Education, Training and Reform Act 2006 • Principals • Police	A mandated reporter must make a report if: • They form a belief on reasonable grounds that a child is in need of protection from physical injury or sexual abuse; • The parents cannot or will not protect the child; and • The belief is formed in the course of practising his/her position of employment. **NB:** exceptions may apply.	A person under 17 years old

	Legislation	Mandated reporters	When must a report be made?	Who is a child?
VIC	**Child Wellbeing and Safety Act 2005 (Vic)**	The head of an entity that is affected by the Reportable Conduct Scheme. The applicable entities are brought into the scheme in three phases (July 1, 2017; January 1, 2018; January 1, 2019). The full list of entities (and the applicable phase) can be found here: **https://ccyp.vic.gov.au/reportable-conduct-scheme/for-organisations/**	A mandated reporter must make a report to the Commission for Children and Young People if they become aware of a reportable allegation against an employee, volunteer or contractor of the entity.	A person under 18 years old
WA	**Children and Community Services Act 2004 (WA)**	• Doctors • Nurses • Midwives • Police officers • Teachers • Boarding supervisors	A mandated reporter must make a report to the Department of Communities Child Protection and Family Support if, in the course of their work, they believe on reasonable grounds that a child has been the subject of sexual abuse or is the subject of ongoing sexual abuse. **NB:** exceptions may apply.	A person under 18 years old

CTH	**Family Law Act 1975 (Cth)**	• The Registrar or a Deputy Registrar of a Registry of the Family Court of Australia. • The Registrar or a Deputy Registrar of the Family Court of Western Australia. • A Registrar of the Federal Circuit Court of Australia. • A familyconsultant. • A family counsellor. • A family dispute resolution practitioner. • An arbitrator. • A lawyer independently representing a child's interests.	A mandated reporter must make a report to the prescribed welfare authority if, in the course of performing their duties, functions or powers, they have reasonable grounds for suspecting that: • A child has been abused. • A child is at risk of being abused.	A person under 18 years old

VOLUNTARY REPORTING OBLIGATIONS

Your organisation's response procedures should also include provisions relating to the voluntary reporting laws relevant to the state or territory in which your organisation operates. (If your organisation operates across borders, consider including a table similar to the one set out below.)

You are not legally required to include voluntary reporting in your policies and procedures, however doing so could help you prevent and respond to cases of child abuse and neglect.

The table below sets out the key features of each state and territory's voluntary reporting duties.

	Legislation	Voluntary reporters	When can a report be made?	Who is a child?
ACT	**Children and Young People Act 2008 (ACT)**	Any person	A voluntary reporter may make a report to Child and Youth Protection Services if: • The person believes or suspects that a child or young person is being abused, is being neglected, or is at risk of abuse or neglect; and • The information is reported honestly and without recklessness. A voluntary reporter may also make a report if: • During a pregnancy, the person believes or suspects that the child that may be born as a result of the pregnancy may be in need of care and protection; and • The information is reported honestly and without recklessness.	A person under 12 years old (NB: A young person is a person who is 12 years old or older, but not yet 18 years old)

	Legislation	Voluntary reporters	When can a report be made?	Who is a child?
ACT	**Ombudsman Act 1989 (ACT)**	The head (i.e. CEO, Principal etc.) or other employee of a designated entity. A designated entity means: • An administrative unit that deals with the safety, welfare or wellbeing of a particular child or class of children. • A health service provider. • A government school or a non-government school. • A provider of an education and care service. • A childcare service. • An approved kinship and foster care organisation. • An approved residential care organisation. • Any other entity prescribed by regulation.	A voluntary reporter may disclose to the Ombudsman any information that they believe on reasonable grounds reveals: • Reportable conduct involving an employee, volunteer or contractor of the entity. • A reportable conviction against an employee, volunteer or contractor of the entity.	A person under 18 years old

NSW	**Children and Young Persons (Care and Protection) Act 1998 (NSW)**	Any person	• A voluntary reporter may make a report to the Department of Family and Community Services if the person has reasonable grounds to suspect that a child or young person (i.e. a 17-year-old) is at risk of significant harm.	A person under 16 years old
NSW	**Ombudsman Act 1974 (NSW)**	The head or other employee of a designated government or non-government agency. A designated non-government agency includes non-government schools, organisations that provide out-of-home care or substitute residential care for children, approved education and care services, and affiliated health organisations within the meaning of the Health Services Act 1997 (NSW).	A voluntary reporter may make a report to the Ombudsman if they become aware of any information that gives them reason to believe that an employee of the agency has committed the following: • Any sexual offence or sexual misconduct committed against, with or in the presence of a child - including a child pornography offence. • Any assault, ill-treatment or neglect of a child. • Any behaviour that causes psychological harm to a child – even if the child consented to the behaviour.	A person under 18 years old

	Legislation	Voluntary reporters	When can a report be made?	Who is a child?
NT	**Care and Protection of Children Act 2007 (NT)**	Any person	A voluntary reporter may make a report to the Department of Health and Families or the police if the person believes on reasonable grounds that: • A child under 18 years old has suffered or is likely to suffer harm or exploitation. • A child under 14 years old has been or is likely to be a victim of a sexual offence. • A child under 18 years old had been or is likely to be a victim of a sexual offence occurring in the context of a special care relationship.	A person under 18 years old
QLD	**Child Protection Act 1999 (QLD)**	Any person	A voluntary reporter may make a report if: • The person reasonably suspects a child may be in need of protection. • An unborn child may be in need of protection after he or she is born.	A person under 18 years old

SA	**Children's Protection Act 1993 (SA)**	Any person	A voluntary reporter may make a report to the Department of Child Protection if the person suspects that a child has been or is being abused or neglected.	A person under 18 years old
TAS	**Children, Young Persons and Their Families Act 1997 (TAS)**	Any person	A voluntary reporter may make a report to the Department of Health and Human Services or a Community-Based Intake Service if the person knows or believes or suspects on reasonable grounds that a child is suffering, has suffered or is likely to suffer abuse or neglect. This also applies to unborn children.	A person under 18 years old
VIC	**Children, Youth and Families Act 2005 (VIC)**	Any person	A voluntary reporter may make a report to a protective intervener (i.e. the police or the Department of Health and Human Services) if: • The person believes on reasonable grounds that a child is in need of protection.	A person under 17 years old

	Legislation	Voluntary reporters	When can a report be made?	Who is a child?
VIC	**Child Wellbeing and Safety Act (Vic)**	Any person	A voluntary reporter may disclose a reportable allegation to the Commission for Children and Young People	A person under 18 years old
WA	**Children and Community Services Act 2004 (WA)**	Any person	A voluntary reporter may make a report to the Department of Communities, Child Protection and Family Support if: • The person has concerns about the wellbeing of a child.	A person under 18 years old
CTH	**Family Law Act 1975 (Cth)**	• The Registrar or a Deputy Registrar of a Registry of the Family Court of Australia. • The Registrar or a Deputy Registrar of the Family Court of Western Australia. • A Registrar of the Federal Circuit Court of Australia. • A family consultant. • A family counsellor. • A family dispute resolution practitioner. • An arbitrator. • A lawyer independently representing a child's interests.	A voluntary reporter may make a report to the prescribed welfare authority if, in the course of performing their duties, functions or powers, they have reasonable grounds for suspecting that a child: • Has been ill-treated, or is at risk of being ill-treated. • Has been exposed or is at risk of being exposed to behaviour. • Which psychologically harms the child.	A person under 18 years old

Reportable conduct scheme:

New South Wales, Victoria and the Australian Capital Territory also place specific obligations on the head of applicable entities (i.e. CEOs, Principals etc.) to make reports under reportable conduct schemes.

Under all three schemes, the head of the applicable entity is required to make a report to a specific external authority if they become aware of a child abuse allegation being made against an employee, director, volunteer or contractor.

The head of the applicable entity is also required under the schemes to provide updates to the applicable external authority. The timeframes and notice requirements differ between the states and territory.

Making a report:

Any person who believes a child is in immediate danger should contact the police immediately. Otherwise, call the relevant numbers below.

Example of immediate danger: A father has picked child up from school and the school is aware that he is not authorised to do so because of a history of abuse. The school must contact the police.	**Example of non-immediate danger:** A child has been acting up in school and the school is aware that his parents have broken up and that there is a history of domestic violence against the mother – in this case action must be taken but it would be more appropriate to raise the concerns with the relevant body than to call the police emergency line.

ACT	Office for Children, Youth and Family Support • General Public line (24 hours) • Mandated Persons line (24 hours) ACT Police - Sexual Assault and Child Abuse Team (SACAT) - Phone line	 1300 556 729 1300 556 728 (02) 6256 7777
NSW	Department of Family and Community Services • General Public line(24 hours) • Mandated Persons line (24 hours)	 13 21 11 13 36 27
NT	Department of Health and Families Child Protection Hotline (24 hours)	 1800 700 250
QLD	Department of Communities, Child Safety and Disability Services During business hours – contact the appropriate Regional Intake Service: • Brisbane • Central Queensland • Far North Queensland • North Coast Queensland • North Queensland • South East Queensland • South West Queensland • After hours • Child Safety Service Centre (24 hours)	 1300 682 254 1300 703 762 1300 684 062 1300 703 921 1300 706 147 1300 679 849 1300 683 390 1800177135or (07) 3235 9999

SA	Department for Education and Child Development Child Abuse Report Line (24 hours)	 13 14 78
TAS	Department of Health and Human Services Child Protection Hotline (24 hours)	 1300 737 639
VIC	Department of Health and Human Services During business hours – contact the appropriate local government area: Northern and western suburbs Eastern suburbs Southern suburbs South-western rural and regional Western rural and regional North-western rural and regional North-eastern rural and regional Eastern and south-eastern rural and regional After hours and to report concerns about the immediate safety of a child: Child Protection Crisis Line (24 hours) Victoria Police - Sexual Offences and Child Abuse Investigation Team (SOCIT) Contact the appropriate local office: North-West Metropolitan Southern Metropolitan Western Victoria Eastern Victoria Commission for Children and Young People Contact the Commission by filling out the notification form at: **https:// ccyp.vic.gov.au/reportable-conduct-scheme/notify-and-update/** or via phone on 1300 78 29 78	 1300 664 977 1300 360 391 1300 655 795 1800 075 599 1800 000 551 1800 675 598 1800 650 227 1800 020 202 13 12 78 (03) 8690 4056 (03) 9556 6128 (03) 5448 1420 (03) 5820 5878 1300 78 29 78
WA	Department of Child Protection and Family Support Mandated Persons line (24 hours) General Public line (24 hours) Business hours: After hours: Western Australia Police - Sexual Assault Squad Phone line	 1800 708 704 1800 622 258 1800 199 00 (08) 9428 1600

9. RESPONDING TO A REPORT:

Historically, allegations of child sexual abuse were often handled with denial and concealment, resulting in a tendency to avoid properly investigating the problem. Despite senior leaders of organisations knowing about allegations of child sexual abuse, the allegations were often ignored. Children were in some cases not believed or even punished for reporting the allegations. Some organisations treated the perpetrators leniently and helped to shield the perpetrator from being held accountable.

In Erlich v Leifer & Anor [2015] VSC 499 a school was held vicariously and directly liable for the conduct of the former principal because (among other reasons) the school arranged for the principal to be flown out of Australia within hours of discovering child sexual abuse allegations against the principal. Examples such as this demonstrate how the reputation of the organisation and the interests of the perpetrator were often prioritised over those of the victims and their families.

With the spotlight now firmly on child abuse, it is imperative that your organisation properly responds to any allegations of child abuse (or any misconduct) in order to protect the safety of children in your care and minimise the risk of a legal claim being made against your organisation.

Different responses will be appropriate depending on the applicable legislation, your organisation's policies and procedures, circumstances of the person making the report, and the level of risk or danger that is suspected. Reporters may include:

- A child reporting a concern about a staff member or volunteer.
- An adult (e.g. a worker or volunteer) reporting a concern about another staff member or volunteer.
- A child or adult reporting a problem with a parent or carer, or someone else external to the organisation.

REPUTATIONAL RISK:

Many organisations over the years have opted to conceal and ignore child abuse suspicions or allegations for fear of reputational damage. We now know that this approach facilitated more incidents of abuse, contributed to the psychological injuries suffered by survivors of abuse, and discouraged the reporting of child abuse allegations. Many organisations are now faced with the harrowing task of responding to allegations of child abuse that occurred more than 20 years ago, with survivors only now mustering the courage to come forward and tell their story.

Historical claims are inherently challenging to respond to. The cost of concealment turned out to be significantly greater than any perceived risk of reputational damage. It is our strong view (and we believe it should go without saying) that any risk to a child, no matter how remote, should always trump any risks to an organisation's reputation, no matter how big or important the organisation may consider itself, or its work, or any particular individual, to be. Stakeholders now expect organisations to exercise transparency.

Legislation, such as the reportable conduct scheme in Victoria, is requiring organisations to notify relevant agencies in circumstances where allegations of child abuse are raised. Failing to properly respond to child abuse allegations can therefore be much more damaging to your organisation's reputation than it was in the past, and could even be in breach of the law. The long-term reputational risks of not responding appropriately to such issues are almost certainly greater than those posed by public disclosure of a one-off offence or accusations of an overreaction.

FIRST STEPS:

As highlighted in Part Six of this toolkit, there are many circumstances under which any suspicions about child abuse must be reported to an external authority. It's best practice to default to this action even where it is not required by law – to act otherwise may put a child in danger and may leave you open to accusations of a coverup.

Whether you have engaged with an external body or not, you should act quickly to minimise any ongoing risks to the

child in your care, and to your personnel or organisation as a whole. Such actions could include:

- Referring to your organisation's child-safe policy to ensure any relevant procedures are complied with.
- Standing the accused staff member/ volunteer down, or transferring them to a position that does not involve contact with children, until an investigation has been concluded.
- Providing appropriate support to the child or children involved (this may involve counselling, special consideration for assessment, or other pastoral care).
- Commencing an internal investigation (as outlined below).
- Reviewing your child protection procedures to determine whether any changes are needed to better protect the children under your care.

Child abuse is an extremely sensitive, risky and legally complex arena. As such, we strongly suggest that you seek urgent expert legal advice before taking any of the actions outlined above.

UNDERTAKING AN INTERNAL INVESTIGATION:

Where an allegation involves your own staff or actions on your own premises, it may be appropriate to undertake an internal investigation in parallel with a police or other external investigation. Such investigations are inherently complex and sensitive in nature, and therefore should be conducted by an appropriately qualified and independent investigator (i.e. a person from outside your organisation) utilising the principles of natural justice and procedural fairness. If your organisation attempts to cuts any corners here, you run the risk of the investigation findings being challenged so it is best to get it right the first time.

All participants in the investigation must be required to maintain confidentiality and should be required to sign a confidentiality agreement as part of the process. This will assist to preserve the integrity of the investigation.

9.1 OBTAIN THE SPECIFIC ALLEGATION/S FROM THE COMPLAINANT.

Any person receiving an allegation of child abuse should obtain and document the specific details regarding the alleged incident that occurred by asking questions such as:

- Can you tell me what happened from the start?
- When and where did the incident occur?
- Did anyone see the incident?
- Who was there?
- What was said/done?

Especially if the complainant is a child, it is important to write down the details of the allegation using the complainant's own words to avoid jumping to conclusions without getting all the facts. For instance, a six-year old child is unlikely to say, "That man sexually assaulted me," but they might say something like, "I don't like the games that man plays with me."

At this point, the person receiving the complaint will need to confidentially report the matter to an internal representative (such as the organisation's child safety officer or human resources manager) and potentially an external body (for example, the police), as per the reporting obligations outlined in Part Six.

9.2 DETERMINE IF IT IS APPROPRIATE TO UNDERTAKE AN INTERNAL INVESTIGATION AT THIS TIME:

If there is an external body involved in the matter, such as the police or a regulatory body, your organisation should ask that body how they want you to proceed before you undertake any internal investigation.

Such bodies may, for example, seek your assistance in investigating one aspect of the complaint (e.g. the employment-related misconduct).

Alternatively, you may be advised not to take any action internally until an external investigation is completed.

9.3 APPOINT AN INVESTIGATOR:

Presuming it is appropriate to undertake an internal investigation of a child abuse complaint, your next step is to appoint an appropriate investigator. Given the serious criminal nature of child abuse, it is recommended that your organisation engage a suitably qualified and independent investigator from outside the organisation. This will help ensure that the allegation has been handled transparently and independently.

In the Victorian Inquiry, a former priest in the Catholic Church, Mr Phil O'Donnell, acknowledged that:

"Many of us feel uncomfortable with only internal investigations of serious matters. An example is the police investigating police corruption/abuse. No one is saying that the police investigators are corrupt or compromised. It's just that 'in house' investigations do not inspire public confidence. The old adage, 'Not only should justice be done, it should be seen to be done,' applies in these matters. This is even more important when the investigations are of a serious criminal nature, as is child sexual assault."

If you do not know how to find a suitable investigator, please feel free to contact Moores for advice (see the back page for contact details).

9.4 COLLECT ALL RELEVANT INFORMATION:

All participants must be afforded procedural fairness, otherwise the findings of the investigation may not be deemed fair or reasonable, and may therefore not stand up in any potential court proceeding.

To ensure procedural fairness the respondent (alleged offender) must be made aware of the allegations made against them in sufficient detail, and must be allowed a reasonable opportunity to respond to each of the allegations. (Again, this action should not be undertaken without the express go-ahead of any external investigators.)

The investigator may then seek to interview any witnesses and collate all relevant documents. They should prepare a signed witness statement for each participant to record their version of events. Consistent with your duty of care obligations, your organisation should provide the investigation participants (including the respondent) with support such as access to the Employee Assistance Program, paid leave, and/or a support person during interviews.

9.5 PRODUCE A COMPREHENSIVE REPORT:

Based on the information collected as part of the investigation, the investigator would then prepare a comprehensive report setting out his/her findings on the balance of probabilities, as well as their reasoning for the findings.

All information collated as part of the investigation should be attached to the investigation report and stored in an appropriate location to maintain confidentiality.

10. CHILD SAFETY CHECKLIST:

The following self-assessment tool is designed to help you:

- Assess the strengths and weaknesses of your organisation's child safety strategy;
- Ensure you are compliant with child safety legislation, common law and organisational policies and procedures.
- Identify the resources your organisation needs in order to proactively implement a child safe environment.

There's a section for managers and a section for employees and volunteers.

We recommend you:

- Consider each question carefully before answering, and default to 'no' if there are any answers you are unsure.
- Encourage all managers to complete the checklist separately then compare the answers to ensure compliance is consistent across the entire organisation.
- Share the results with all managers and staff/ volunteers, along with plans to address any deficiencies.
- Pass the results of the checklist and action plans on to the board.

Checklist for managers		YES	NO	Where to go for help
1	Do you understand the current social and legal context in your state and nationally concerning child protection?			See Part Three of this toolkit.
2	Does your organisation comply with child- protection laws?			See Part Three of this toolkit.
3	Are you aware of the relevant child protection bodies operating in your state or territory?			See Part Six of this toolkit.
4	Are you aware of the laws that apply in your state that protect people who make reports about suspected child abuse or neglect?			See Part Four of this toolkit.
5	Has your organisation made a clear public statement about its attitude to prevention of and response to child abuse?			See Part Four of this toolkit.
6	Does your organisation have a child-safe policy, and does it include:			See, for example, sample policy in the appendix of this toolkit
	a. A statement expressing the organisation's commitment to child safety.			
	b. A definition of what constitutes child abuse.			
	c. Procedures and decision-making processes that surround the organisation's interactions and involvement with children.			
	d. An outline of your organisation's recruitment and supervision processes.			
	e. Processes for identifying and managing child abuse risks.			
	f. Processes for reporting and handling child abuse concerns and complaints.			
	g. Processes for managing communication about suspected or actual child abuse, both internally and externally;			

	h. AA description of the roles and responsibilities of personnel involved in protecting children, including the duty of care of the board, management, staff and volunteers;			
	i. AA statement setting out the organisation's commitment to the cultural safety of culturally and/or linguistically diverse children (including Aboriginal children).			
	j. A statement setting out the organisation's commitment to the safety of children with a disability; and			See, for example, sample policy in the appendix of this toolkit
	k. Information about how the policy is implemented, governed and reviewed?			
7	Does your organisation have a code of conduct that establishes clear expectations of appropriate behaviour with children, and does it include:			See, for example, the sample code of conduct (Appendix Two)
	a. Clear and specific standards of conduct for working with children in different situations relevant to the organisation;			
	b. Clear expectations of appropriate relationships with children for staff, volunteers and families (e.g. when it is appropriate for there to be physical contact, social media boundaries, etc.);			
	c. Instructions on how adults should respond to any risks adults may pose to children, or that children may pose to each other;			
	d. Guidance about how to deal with conduct that is not consistent with any applicable legislation or code;			
	e. Recognition of the needs of children from culturally and/or linguistically diverse backgrounds; and			
	f. Recognition of the needs of children with a disability and appropriate behaviour and g. Relationships for personnel and children (e.g. appropriate ways to physically and emotionally assist a child with a disability).			

8	Are your policies, procedures, code of conduct and other documents relating to child safety:			
	a. Written in plain English?			
	b. Publicly available?			
9	Have all relevant staff/volunteers received training in your organisation's child-safe policies and procedures?			Moores can provide training tailored to your organisation's needs – see contact details on the back page
10	Does your organisation's recruitment practices include, at a minimum:			See Part Five of this toolkit
	a. A documented process for recruitment that applies to all voluntary and paid roles?			
	b. Analysis of each role (prior to recruitment) to ensure an understanding of its child-safety risk context?			
	c. Inclusion of a child-safe statement in job advertisements and job descriptions?			
	d. Provision to all short-listed applicants a copy of your organisation's child protection policy and code of conduct?			
	e. Structured interviews that include questions designed to elicit information about the candidate's values, attitudes, aptitudes and work history?			
	f. An interview panel that includes at least one person with a knowledge of the dynamics of child abuse?			
	g. At least two verbal reference checks with employers who have directly supervised the selected candidate?			
	h. A working with children / police check relevant to the scheme operating in your state/s or territory?			

11	Have employee and volunteer induction materials been reviewed to ensure they comply with new child-protection laws?			See Part Three of this toolkit
12	Does the organisation have a system in place to ensure knowledge of and compliance with its policies and procedures?			See Part Four of this toolkit
13	Does the organisation have aneffective internal policy and procedure for managing complaints, unsatisfactory performance and misconduct?			See Appendix One
14	Are staff/volunteers aware of mandatory reporting requirements applying to them?			See Part Six ofthistoolkit

15	Have staff and volunteers received training in relation to their privacy and confidentiality obligations?			Moores can provide training tailored to your organisation's needs – see contact details on the back page
16	Does your organisation make available to children age-appropriate information about what might constitute inappropriate behaviour towards them?			See Part Four of this toolkit
17	Dochildrenunderyourorganisation'scareknow who they can talk with if they are worried or feeling unsafe?			See Part Four of this toolkit
18	Does your organisation have a culture that supports the reporting of suspicions or allegations of child abuse to managers, police and other relevant authorities?			See Part Four of this toolkit
19	Does your organisation encourage open communication with families and carers?			See Part Four of this toolkit
20	Is information regarding how to make a complaint about the organisation or an employee of the organisation available to community members, including parents?			

21	Does your organisation have a stated commitment to acting immediately in relation to any reports of child abuse?			See Appendix 1
22	Does your organisation have processes in place to ensure an immediate and appropriate response to suspected or actual child abuse or neglect?			See Appendix 1
23	Are all staffed volunteers clear to whom any reports of suspected or actual child abuse or neglect should be made, and by what methods?			See Part Six of this toolkit
24	Are children within your organisation's care given the opportunity to contribute to the development of child-protection policies and procedures?			See Part Four of this toolkit
25	Does your organisation regularly (at least annually) review its child protection policies, procedures and practices?			See Part Four of this toolkit
26	Do you have in place strategies for ensuring you stay up to date with legal and other developments in this area?			See Part Four of this toolkit u

Questions for staff and volunteers		**YES**	**NO**	**Where to go for help**
1	Are you aware of the warning signs of a potential child abuser?			The South Eastern Centre Against Sexual Assault &Family Violence **website** contains some useful information on grooming and sexual predator warning signs
2	Do you know what grooming is, and what some of the signs of grooming might be?			
3	Do you believe children in your organisation feel able to speak up about any concerns they may have about adult behaviour?			See Part Four of this toolkit

4	Do you know to whom any reports of suspected or actual child abuse or neglect should be made, and by what methods?			See Part Six of this toolkit
5	Are you aware of any mandatory reporting requirements that apply to you if you suspect child abuse.			See Part Six of this toolkit
6	Would you feel confident and comfortable to disclose to management any child safety concerns you might have?			
7	Are you aware of your obligations to children and their parents/carers regarding privacy and confidentiality?			Moores can provide training tailored to your organisation's needs – see contact details on the back page
8	Are you aware of what to do and who to contact if you receive a report of suspected child abuse or neglect?			See Part Seven of this toolkit

APPENDIX 1: SAMPLE CHILD SAFETY POLICY

Note: This is a sample policy, not a template – it should be used as a starting point only. It is available in editable format at www.communitydirectors.com.au/icda/policybank/. You may need to consult a lawyer before finalising your organisation's own version. Please note that this sample is not suitable for schools, which have additional obligations.

INTRODUCTION

[Name of Organisation] is committed to promoting and protecting the interests and safety of children. We have zero tolerance for child abuse.

Everyone working at [Name of Organisation] is responsible for the care and protection of children and reporting information about child abuse.

PURPOSE

The purpose of this policy is:

1. To facilitate the prevention of child abuse occurring within [Name of Organisation].
2. To work towards an organisational culture of child safety.
3. To prevent child abuse within [Name of Organisation].
4. To ensure that all parties are aware of their responsibilities for identifying possible occasions for child abuse and for establishing controls and procedures for preventing such abuse and/or detecting such abuse when it occurs.
5. To provide guidance to staff/volunteers/contractors as to action that should be taken where they suspect any abuse within or outside of the organisation.
6. To provide a clear statement to staff/volunteers/ contractors forbidding any such abuse.
7. To provide assurance that all cases of suspected abuse will be reported and fully investigated.

POLICY

[Name of Organisation] is committed to promoting and protecting the best interests of children involved in its programs.

All children, regardless of their gender, race, religious beliefs, age, disability, sexual orientation, or family or social background, have equal rights to protection from abuse.

[Name of Organisation] has zero tolerance for child abuse. Everyone working at [Name of Organisation] is responsible for the care and protection of the children within our care and reporting information about suspected child abuse.

Child protection is a shared responsibility between the [Name of Organisation], all employees, workers, contractors, associates, and members of the [Name of Organisation] community.

[Name of Organisation] will consider the opinions of children and use their opinions to develop child protection policies.

[Name of Organisation] supports and respects all children, staff and volunteers. [Name of Organisation] is committed to the cultural safety of Aboriginal children, and those from culturally and/or linguistically diverse backgrounds, and to providing a safe environment for children living with a disability.

If any person believes a child is in immediate risk of abuse, telephone 000.

PROCEDURES

Responsibilities

The Board of [Name of Organisation] has ultimate responsibility for the detection and prevention of child abuse and is responsible for ensuring that appropriate and effective internal control systems are in place. The Board is also responsible for ensuring that appropriate policies and procedures and a Child Protection Code of Conduct are in place the CEO of [Name of Organisation] is responsible for:

- Dealing with and investigating reports of child abuse.
- Ensuring that all staff, contractors, and volunteers are aware of relevant laws, organisational policies and procedures, and the organisation's Code of Conduct.
- Ensuring that all adults within the [Name of Organisation] community are aware of their obligation to report suspected sexual abuse of a child in accordance with these policies and procedures.
- Ensuring that all staff, contractors and volunteers are aware of their obligation to observe the Code of Conduct (particularly as it relates to child safety).
- Providing support for staff, contractors and volunteers in undertaking their child protection responsibilities.

All managers must ensure that they:

- Promote child safety at all times.
- Assess the risk of child abuse within their area of control and eradicate or minimise any risk to the extent possible;
- Educate employees about the prevention and detection of child abuse.
- Facilitate the reporting of any inappropriate behaviour or suspected abusive activities.

Management should be familiar with the types of abuse that might occur within their area of responsibility and be alert for any indications of such conduct.

All staff/volunteers/contractors share the responsibility for the prevention and detection of child abuse, and must:

- Familiarise themselves with the relevant laws, the Code of Conduct, and [Name of Organisation]'s policy and procedures in relation to child protection, and comply with all requirements.
- Report any reasonable belief that a child's safety is at risk to the relevant authorities (such as the police and/or the state-based child protection service) and fulfil their obligations as mandatory reporters.
- Report any suspicion that a child's safety may be at risk to their supervisor (or, if their supervisor is involved in the suspicion, to a responsible person in the organisation).
- Provide an environment that is supportive of all children's emotional and physical safety.

DEFINITIONS:

Child means a person below the age of 18 years unless otherwise stated under the law applicable to the child.

Child protection means any responsibility, measure or activity undertaken to safeguard children from harm.

Child abuse means all forms of physical abuse, emotional ill-treatment, sexual abuse and exploitation, neglect or negligent treatment, commercial (e.g. for financial gain) or other exploitation of a child and includes any actions that results in actual or potential harm to a child.

Child sexual assault is any act which exposes a child to, or involves a child in, sexual processes beyond his or her understanding or contrary to accepted community standards.

Sexually abusive behaviours can include the fondling of genitals, masturbation, oral sex, vaginal or anal penetration by a penis, finger or any other object, fondling of breasts, voyeurism, exhibitionism, and exposing the child to or involving the child in pornography. It includes child grooming, which refers to actions deliberately undertaken with the aim of befriending and establishing an emotional connection with a child to lower the child's inhibitions in preparation for sexual activity with the child.

Reasonable grounds for belief is a belief based on reasonable grounds (see below) that child abuse has occurred when all known considerations or facts relevant to the formation of a belief are taken into account and these are objectively assessed.

Circumstances or considerations may include the source of the allegation and how it was communicated, the nature of and details of the allegation, and whether there are any other related matters known regarding the alleged perpetrator.

A reasonable belief is formed if a reasonable person believes that:

(a) The child is in need of protection.

(b) The child has suffered or is likely to suffer "significant harm as a result of physical injury,"

(c) The parents are unable or unwilling to protect the child.

A 'reasonable belief' or a 'belief on reasonable grounds' is not the same as having proof, but is more than mere rumour or speculation.

A 'reasonable belief' is formed if a reasonable person in the same position would have formed the belief on the same grounds.

For example, a 'reasonable belief' might be formed if:

a) A child states that they have been physically or sexually abused.

b) A child states that they know someone who has been physically or sexually abused (sometimes the child may be talking about themselves).

c) Someone who knows a child states that the child has been physically or sexually abused.

d) Professional observations of the child's behaviour or development leads a professional to form a belief that the child has been physically or sexually abused or is likely to be abused.

E) SIGNS OF ABUSE LEAD TO A BELIEF THAT THE CHILD HAS BEEN PHYSICALLY OR SEXUALLY ABUSED.

EMPLOYMENT OF NEW PERSONNEL:

[Name of Organisation] undertakes a comprehensive recruitment and screening process for all workers and volunteers that aims to:

- Promote and protect the safety of all children under the care of the organisation.
- Identify the safest and most suitable people who share [Name of Organisation]'s values and commitment to protect children.
- Prevent a person from working at [Name of Organisation] if they pose a risk to children.

Name of Organisation] requires all workers/ volunteers to pass through the organisation's recruitment and screening processes prior to commencing their engagement with [Name of Organisation].

[Name of Organisation] may require applicants to provide a police check in accordance with the law and as appropriate, before they commence working at [Name of Organisation] and during their time with [Name of Organisation] at regular intervals.

[Name of Organisation] will undertake thorough reference checks as per the approved internal procedure.

Once engaged, workers/volunteers must review and acknowledge their understanding of this Policy.

RISK MANAGEMENT:

[Name of Organisation] will ensure that child safety is a part of its overall risk management approach.

[Name of Organisation] will have a risk and compliance sub-committee committed to identifying and managing risks at [Name of Organisation]. Risk and compliance sub-committee members will receive regular training in relation to child safety

REPORTING:

Any staff member, volunteer or contractor who has grounds to suspect abusive activity must immediately notify the

appropriate child protection service or the police. They should also advise their supervisor about their concern.

In situations where the supervisor is suspected of involvement in the activity, or if the person having the suspicion does not believe that the matter is being appropriately addressed or dealt with, the matter should be reported to the next highest level of supervision.

Supervisors must report complaints of suspected abusive behaviour or misconduct to the CEO and also to any external regulatory body such as the police.

[Insert here relevant mandatory/voluntary reporting requirements relevant to your state. See Part Six of the Child Safety Toolkit for details.]

INVESTIGATING:

If the appropriate child protection service or the police decide to investigate a report, all employees, contractors or volunteers must co-operate fully with the investigation.

Whether or not the authorities decide to conduct an investigation, the CEO will consult with the authorities to determine whether an internal investigation is appropriate. If it is decided that such an investigation will not conflict with any proceeding of the authorities, the CEO may decide to conduct such an investigation. All employees, contractors and volunteers must co-operate fully with the investigation.

Any such investigation will be conducted according to the rules of natural justice.

The CEO will make every effort to keep any such investigation confidential; however, from time to time other members of staff may need to be consulted in conjunction with the investigation.

After an initial review and a determination that the suspected abuse warrants additional investigation, the CEO shall coordinate the investigation with the appropriate investigators and/or law enforcement officials.

Internal or external legal representatives will be involved in the process, as deemed appropriate.

RESPONDING:

If it is alleged that a member of staff, contractor or a volunteer may have committed an offence or have breached the organisation's policies or its Code of Conduct the person concerned may be stood down (with pay, where applicable) while an investigation is conducted.

If the investigation concludes that on the balance of probabilities an offence (or a breach of the organisation's policies or Code of Conduct) has occurred then disciplinary action may follow, up to and including dismissal or cessation of involvement with the organisation. The findings of the investigation will also be reported to any external body as required.

PRIVACY:

All personal information considered or recorded will respect the privacy of the individuals involved unless there is a risk to someone's safety. [Name of Organisation] will have safeguards and practices in place to ensure any personal information is protected. Everyone is entitled to know how the personal information is recorded, what will be done with it, and who will be able to access it.

REVIEWING:

Every two years, and following every reportable incident, a review shall be conducted to assess whether the organisation's child protection policies or procedures require modification to better protect the children under the organisation's care.

RELATED DOCUMENTS:

- Confidentiality Policy.
- Legislative Compliance Policy.
- Risk Management Policy.

- Staff Recruitment Policy.
- Staff Induction Policy.
- Whistleblower Policy
- This policy must be read in conjunction with:
  - The law of the Commonwealth or of the relevant state or territory.
  - The organisation's code of conduct.
  - Termination of Employment Policy and Misconduct Procedures.

APPENDIX 2: SAMPLE CHILD SAFETY CODE OF CONDUCT

Note: Within the general principles expressed here and elsewhere in this toolkit, more specific procedural provisions may be necessary to deal with particular circumstances and difficult situations – for example, sports coaching may legitimately involve some forms of physical contact, and some people with disabilities may legitimately require carefully monitored physical restraint. Such specific provisions must be developed by staff and stakeholders in the organisations that require them and cannot be prescribed on a one-size-fits-all model. The Victorian Child-Safe Standards suggest that to remove any ambiguity employees should be required to sign a statement that they agree to abide by the code of conduct. If your organisation already has in place a code of conduct, you can incorporate the below into your existing document.

Management, staff, volunteers and contractors at [Name of Organisation] are required to abide by this Code of conduct.

Under the CEO, management will:

1. Be responsible for the overall welfare and wellbeing of staff and volunteers.
2. Be accountable for managing and maintaining a duty of care towards staff and volunteers.
3. Nominate a Child Protection Officer to provide information and support to all staff, volunteers, children, young people and their carers regarding child protection matters.

All people involved in the care of children on behalf of [Name of Organisation] will:

1. Work towards the achievement of the aims and purposes of the organisation.
2. Be responsible for relevant administration of programs and activities in their area.
3. Maintain a duty of care towards others involved in these programs and activities.
4. Establish and maintain a child-safe environment in the course of their work.
5. Be fair, considerate and honest with others.
6. Treat children and young people with respect and value their ideas and opinions.
7. Act as positive role models in their conduct with children and young people.
8. Be professional in their actions.
9. Maintain strict impartiality.
10. Comply with specific organisational guidelines on physical contact with children.
11. Respect the privacy of children, their families and teachers/carers, and only disclose information to people who have a need to know.
12. Maintain a child-safe environment for children and young people.
13. Operate within the policies and guidelines of [Name of Organisation].
14. Contact the police if a child is at immediate risk of abuse, phone 000.

No person shall:

1. Shame, humiliate, oppress, belittle or degrade children or young people.
2. Unlawfully discriminate against any child.
3. Engage in any activity with a child or young person that is likely to physically or emotionally harm them.
4. Initiate unnecessary physical contact with a child or young person, or do things of a personal nature for them that they can do for themselves.

5. Be alone with a child or young person unnecessarily and for more than a very short time.
6. Develop a ‘special’ relationship with a specific child or young person for their own needs.
7. Show favouritism through the provision of gifts or inappropriate attention.
8. Arrange contact, including online contact, with children or young people outside of the organisation’s programs and activities.
9. Photograph or video a child or young person without the consent of the child and his/her parents or guardians.
10. Work with children or young people while under the influence of alcohol or illegal drugs.
11. Engage in open discussions of a mature or adult nature in the presence of children.
12. Use inappropriate language in the presence of children.
13. Do anything in contravention of the organisation’s policies, procedures or this Code of Conduct.

What happens if you breach this Code of Conduct:

If you breach this Code of Conduct you will face disciplinary action, including and up to termination of employment or cessation of engagement with the organisation.

APPENDIX 3: THE VICTORIAN CHILD-SAFE STANDARDS

As a result of its 2013 inquiry into the handling of child abuse, the Victorian Government has mandated that organisations working with children adhere to a series of standards to promote child safety, prevent child abuse and properly respond to allegations.

The context for these changes is outlined in Part Three of this toolkit.

It's worthwhile for any organisation that works with children, whatever state it's in, to work to the new Victorian standards. Some practical strategies to help you do so are provided below.

Embed an organisational culture of child safety, including effective leadership arrangements

- Ensure strategic direction, vision and mission statements include child safety.
- Provide induction/ training in recognising and responding to child abuse for all personnel including at leadership level.
- Appoint an appropriately trained child safety officer/ champion.
- Build responsibility for embedding an organisational culture of safety into performance arrangements and position descriptions for senior staff.
- Promote a confidential reporting culture.
- Maintain adequate records of child safety issues (ensuring the keeping of such records respect privacy).
- Institute improvements to child safety policies and procedures as a regular agenda item at leadership and staff meetings.
- Clearly communicate child safety policies and procedures to all staff, volunteers, children and families and publish policies for child safety on the organisation's website.

Have a child-safe policy or statement of commitment to child safety;

- Use our sample policy (see Appendix Two) to get you started on developing a Child Protection Policy suitable for your workplace.
- Train your staff on the policy and provide plenty of question-and-answer time to work through the practical components of how people report concerns as they arise.
- Publicly communicate your organisation's stance on child protection – on your website, in your annual report, and via recruitment advertisements.
- Ensure your child-safe policy or statement is on your website for all to see and read.
- Communicate your child-safe statement in community languages, ensuring that it is culturally appropriate for Aboriginal and people from culturally and linguistically diverse backgrounds.
- Ensure that your child-safe information is accessible for people with a disability.

Have a code of conduct that establishes clear expectations for appropriate behaviour with children:

- Update your code of conduct to include:
    - Clear and specific standards of conduct for working with children in different situations, e.g. boundaries for physical contact in sports coaching or where restraining a child with a disability who is at risk of harming themselves.
    - A set of clear principles (suitable for your organisation) about how Workplace participants should behave in a child-safe environment.
    - A statement about your organisation's zero tolerance when it comes to inappropriate behaviour towards children.

- Train staff on the updated code of conduct.
- Require staff and volunteers (and all those working with children) to sign a copy of the code of conduct, acknowledging they have read it, understand it, and agree to abide by it.

Put in place screening, supervision, training and other human resources practices that reduce the risk of child abuse by new and existing personnel:

- Ensure potential applicants are aware of your organisation's commitment to child safety.
- Apply a stringent recruitment process to all appointments for roles that involve working with children.
- Ensure that your recruitment and selection processes focus on factors that may indicate a risk to child safety,

  i.e. "red flags" (e.g. reluctance to undergo a Working with Children Check or police check).
- When hiring or appointing personnel who will work/interact with children, ensure that they have a fulsome understanding of child safety and the relevant reporting protocols, and that they respect Aboriginal culture, cultural and linguistic diversity and the needs of children with a disability.
- Carry out appropriate working with children/police and reference checks.

See Part Five of this toolkit for more on this topic.

Have processes for reporting and responding to suspected child abuse:

(REPORTING)

- Ensure a supportive environment for children, staff, volunteers or families who report allegations of abuse or child safety concerns – never discipline a staff member for reporting a concern (unless there is clear evidence that the complaint was made for an improper purpose such as retribution).
- Train your staff, volunteers, families and children on your organisation's reporting procedures so that they know how to report abuse allegations, and to whom.
- Train staff and volunteers on how to identify signs of risk.
- Ensure that those handling complaints understand when to notify authorities, including the police and child protection, of suspected child abuse.
- Ensure that there is an information feedback loop – that is, that the person who made the complaint knows what has been done with that information so that they can have confidence that the organisation is handling the matter appropriately.
- Publicise (e.g. on your website) the ways in which people can report concerns (e.g. on your website), tailoring messages for children and families and providing information in a variety of languages and relevant modalities (such as braille and assistive technologies, as appropriate).

(RESPONDING)

- Your first priority should always be to ensure that children are safe. This may mean that you need to suspend the alleged perpetrator and provide them with alternative duties during the carrying out of an investigation (seek legal advice before standing someone down). You may also need to contact a support person for the affected child, including a parent or carer as appropriate.
- Provide support and comfort to a child reporting abuse or safety concerns, and ensure that a child is never blamed or interrogated.
- Provide ongoing support to all participants in the investigation (including the alleged perpetrator), and ensure that all participants are aware of any Employee Assistance Program or counselling services available to them.
- Regularly review and seek feedback on your processes and policies to ensure they are serving the community you support.

Have strategies to identify and reduce or remove risks of child abuse:

- Ensure that your risk management program includes a process designed to evaluate risks posed to children, taking into account the organisation's activities, size and resources, and the types of children you work with.
- Have a risk management committee that regularly discusses child protection and any incidents/reports that have been made with an aim of assessing and limiting/eliminating any ongoing risk.
- Remove risks to children where possible (e.g. terminate staff/volunteers who are not suitable to work with children – seek legal advice before terminating such a relationship).
- Remove physical risks to children. The Victorian Department of Health and Human Services recommends that organisations working with children:
    - Provide staff and volunteers with training in identifying children at risk of abuse.
    - Identify organisational child abuse risks such as blocked-off/out-of-sight spaces (especially rooms with doors that can be locked).
    - Roster staff with experience and qualifications to manage high risk environments.
- Always learn from past lessons and talk about incidents/complaints at senior management level to ensure that learnings are shared and benefited from across the organisation.

Have strategies to promote the participation and empowerment of children:

- Provide children, including children from culturally and linguistically diverse backgrounds and children with a disability with accessible information about what child abuse is, their rights, and how they can raise concerns about abuse – e.g. through information sheets, websites and social media.
- Assist children to understand their right to make decisions about their body and their privacy through age-appropriate training carried out by child safety professionals such as child psychologists.
- Gather feedback from children about your organisation's child safety policies and processes and seek input on whether children would feel safe to raise concerns. Implement improvements based on this feedback.
- Train staff and volunteers on methods of empowering children and encouraging children's participation.
- Encourage participation and empowerment of children in a range of organisational activities (not just those relating to child safety), such as organisational planning and decision making.
- Raise awareness in the organisation and the community about children's rights.

Child Protection Policy

TABLE OF CONTENTS – CHILD PROTECTION POLICY –CHIDL SAFE AUSTRALIA

1. FORWARD:

This transcription of the SP3 Sample Child Safety Policy is for users of Child Safe Australia 'Safety Management Online' [SMO] Portal and uses language and terms users would be familiar with. The child safety tool kit provided by Moores includes a sample Child Safety Policy for non-users of the SMO.

2. CONTEXT - SP3 SAMPLE CHILD SAFETY POLICY:

This SP3 Child Safety Policy has been developed as a sample for use by small to medium community organisations utilising SP3. Organisations can use the framework, adopting it for their needs, but must emphasise any additional regulatory requirements specific for their context (e.g. registration authority requirements for schools, or accreditation authority for camps and accommodation). Larger, complex, and/or highly regulated organisations may require more substantive changes to meet their policy needs.

You may need to change certain terminology to suit your structure. For example, the term 'Board' has been used to mean "governing oversight body of the organisation", but in your context it may be more appropriate to use another term specific to your governing oversight.

This document has been collated using a number of resources with permission, and in particular we acknowledge the work of Ansvar Insurance who have been leaders in providing molestation insurance in Australia.

The advice, information and procedures in this document are given in good faith. It will be necessary to adapt it to your organisation before adopting it. This includes checking the legislative requirements for reporting in your jurisdiction. It will also be necessary to develop various procedures to accompany this policy. The key inclusion here is a strong process of reporting and responding to child sexual and other abuse allegations. Other existing SP3 forms and resources can be modified and included appropriate to your operations (refer SMO resources section or SP3 resource index in 'A ChildSafe Organisation' Guide).

The SP3 'A ChildSafe Organisation' Guide also sets the agenda for safety management, and a framework for such, in

your organisation. The stepped framework and the 'SP3 implementation map' (inside cover) clearly indicate the practice areas requiring attention that your organisation will prioritise for attention over time, relative to your organisation's capacity to achieve these priorities.

ChildSafe expects this document will be altered to more accurately reflect your individual situation and the jurisdiction in which you operate.

ChildSafe does not accept any liability whatsoever for the document in its current form or any changes, errors or omissions which may result in injury, loss or damage, including consequential or financial loss. It is the responsibility of each organisation or person to ensure that they comply with their statutory obligations and any interpretation or implementation of the document is at the sole discretion of the organisation or other party who may read this policy. By using this policy, your organisation agrees to these terms.

Any terms or definitions referred to in this document apply only to the document and do not necessarily apply to insurance contracts or government standards.

Introduction

1. [Y Organisation] is committed to providing a child-safe and child-friendly environment.

2. [Y Organisation] adopts the ChildSafe SP3 system and is committed to sound implementation of it. This policy is intended to help [Y Organisation] achieve this.

3. This policy must be followed by every person involved in operations in [Y Organisation]. Such operations are any activities authorised by [Y Organisation].

4. For the purpose of this policy a child is a person under the age of 18 years.

The People Responsible

5. [Y Organisation Board] accepts ultimate responsibility for ensuring [Y Organisation] is child-safe.

6. [Y Organisation Board] appoints [insert name or position description] as Risk Management Officer ('RMO'). The RMO is responsible for overseeing the integration of ChildSafe SP3 into [Y Organisation] as a whole, and reporting [insert period of time –

   e.g. quarterly] to [Y Organisation Board] on this.

7. The Coordinators in [Y Organisation], and their respective operation areas, are set out in Item 1, Schedule 1. Each Coordinator is responsible for ensuring the implementation of ChildSafe SP3 into their operations area, and reporting [insert period of time – e.g. monthly] to the RMO on this.

8. Team Leaders are the people in [Y Organisation], who hold recognised positions in, or who are responsible for, Team Members and participants in organisation operations.

9. Team Members are unpaid people who are invited by Team Leaders to assist them in their operations.

Screening

10. A person must have a valid 'Working with Children Check', and/or Police Check, and be screened (including reference-checked) in accordance with the Appointment Procedure before serving in any operations position listed in Item 2, Schedule 1.

11. A person who has been charged with a violent or sexually-related offence (whether convicted or not) cannot be involved in child-related programs or work in immediate proximity to child-related programs.

Training

12. The RMO, Coordinators, Team Leaders and Team Members must be trained (face-to- face and online) in accordance with the Training Procedure.

13. The RMO must maintain a training register of those trained. Refresher training must be held every [insert period

of time e.g. 1-3 years]

Accountability:

14. No-one is accountable to themselves. Everyone is accountable to someone-else.

15. A Team Member or Team Leader cannot go ahead with an activity unless 'Permission- to-Proceed' has been granted by the Coordinator using the Permission to Proceed Procedure. This is a critical, foundational principle for all operations at [Y Organisation].

General Rules for Conduct:

16. Every person involved in operations at [Y Organisation] must treat the safety and care of children as paramount.

17. [Y Organisation] adopts the Code of Practice set out in pages 15 - 28 of the SP3 Team Members Guide. Each person involved in operations in [Y Organisation], including every Team Member, Team Leader and Coordinator, must comply with the Code of Practice. Failure to do so will result in discipline under the Discipline Procedure.

18. The only person authorised to speak to the media in relation to any [Y Organisation] operations is [insert name]. No other person should speak to the media.

Incident Reporting & Complaint Procedure:

19. Allegations of abuse are very serious and require a high degree of care when handling. Children should be believed.

20. Incidents must be reported in accordance with the Child Harm & Abuse Complaint Policy, recorded on an Incident Report, and where applicable investigated in accordance with the Investigations Procedure. Steps must be taken to ensure the safety of children while an investigation is underway.

Record-keeping:

21. Information and documents that contain personal information must be stored confidentially and securely in accordance with [Y Organisation] Privacy Policy.

Other documents:

22. The procedures and other documents that will be used by [Y Organisation] to implement this policy are set out in Items 3 and 4 in Schedule 1.

Review:

23. This policy must be reviewed and updated by [insert date]. The person responsible for this is named in Item 5 of Schedule 1.

This policy was adopted by resolution of the [Y Organisation Board] on [date].

.....

Signature of Board Chair or Secretary

3. SCHEDULE 1:

Item #	Description	Names and Positions
1.	The Coordinators in [Y Organisation]:	□ [insert name or position] for [operations or program area] Examples: Children's program Director Drama or Dance Director Coach or activity Manager [individual name], for 'Children's Park Event' [individual name], for recurring children's activity
2.	The people that must have valid Working with Children Checks and be screened:	□ [insert name or description of category] for [operations or program area] Examples: Each member of Organisation Board. All senior operational leaders. All paid employees. The RMO and all Coordinators. Team Members and Leaders in Children's operations Team Members and Leaders for child activities.
3.	Primary policies and procedures:	□ This Child Safe Policy e.g. CSE4-POL □ SP3 Code of Practice e.g. SP3 Team Members Guide, pp15-28 □ Child Harm, Abuse & Complaint Policy e.g. CSE4-COM □ Recruitment procedure and/or Leader appointment procedure e.g. CSE3-OA □ WWCC & mandatory reporting e.g. CSE3-MR □ Permission to proceed e.g. CSE3-CP □ Privacy policy
4.	Other relevant documents: (many other SP3 procedure documents exist at a level below the prime documents referenced here to support practice – refer SP3 resources list, indicating appropriate documents in context and employed by your organisation. Some procedures	□ Training procedure □ Incident report form e.g. CSE3-IR □ Risk assessment procedure e.g. CSE3-SS □ Discipline procedure □ Investigations procedure [1]

	may still need to be created).	□ Resources summary index e.g. CSE3-SP3R
5.	Person responsible for ensuring policy is reviewed and updated:	[insert name].
1. Investigations may be a simple (internal) process (contained within CSE4-COM), be a broader policy, or subject to an external process like a State Reportable Conduct Scheme. For the latter, authority directives may guide the investigations procedure.		

4. IMPLEMENTATION CHECKLIST:

Step 1:

Senior leadership personnel in the organisation (including the organisation Board) should read the SP3 'a Childsafe Organisation' guide. In this checklist we refer to that as the 'RMO Guide'.

Step 2:

Senior leadership personnel should meet and:

- Brainstorm a list of programs carried out by the organisation or under the organisation's umbrella.
- Identify the programs from the list that involve children.
- Brainstorm situations that have occurred in the past where there has been inappropriate conduct involving children, or where an issue has arisen in relation to children, and a team member or leader or member of staff has been unsure how to respond.
- Plan for a process to capture feedback for concerns from leaders and children, to inform risk assessments that are prioritised for action. List anything that is troubling them or that is unclear to them about how to ensure that the organisation is a safe place for children.

This process will help the leadership engage with the issues, and form the basis for evaluating and completing (including amending where necessary) the template policy.

Step 3:

Read the template policy, and fill in the grey text parts with your organisation's details. Consider whether anything needs to be added or changed to suit your organisation's size and needs (based on the brainstorm session in step 2).

You may need to change the terminology in some cases. For example – you may have executive powers in 'Directors' or a 'CEO' role rather than a Board; and in your jurisdiction you may be required to have a "Blue Card" or "Police Check" rather than a "Working with Children Check".

Step 4:

The organisation Board should decide who will be the RMO and seek that person's consent. This should be given after they have been screened, read the SP3 'a ChildSafe Organisation' booklet and signed an appropriate Agreement to Safety Policy Form for this role.

Step 5:

Complete the highlighted parts in Schedule 1. This can be done by:

- For item 1: Identify (make a list of) the RMO, Coordinators and Team Leaders. Tip: see figure 5 on page 13 of the SP3 RMO Guide. Fill out Item 1 of Sch 1 with this information.
- For item 2:
- Look up the Working with Children Check requirements in your jurisdiction. See table (current as at May 2018):

Working with Children's Checks – Links to State Regulations and Requirements.

- **ACT**
- **NSW**
- **NT**
- **Queensland**
- **South Australia**
- **Tasmania**
- **Victoria**
- **Western Australia**
- Then, using that information and the list of programs identified in Step 2, identify any programs where people are required to have a Working with Children Check, and list the Team Members, Team Leaders, and Coordinator positions in programs in Item 2 in Schedule 1.
- Recommendation: also include the organisation Board. See page 18 of the RMO Guide.
- Tip: make sure that someone (or multiple people) leave the meeting with an "action point" that is to follow up on the Working with Children Checks and references for all of the people in positions listed in Item 2. This will probably be the RMO.

Step 6:

Step 6 involves developing procedures necessary to carry the policy into practice. The primary procedures ChildSafe have identified as likely to be necessary are set out in Item 3 in Schedule 1. You can change and adjust this list as required.

Each procedure developed should have sign-off by the organisation Board and the RMO.

Step 7:

Decide who will be responsible for following up to ensure the policy is reviewed. This person's name and description can be inserted in Item 5 of Schedule 1.

Step 8:

The policy should be formally adopted by resolution of the organisation Board or other governing body of the organisation.

Other tips

- Make sure that the organisation (particularly the organisation Board and the RMO) work through the questions on the SP3 Implementation Map set out on the inside front cover of the SP3 "a Childsafe Organisation" guide. This supports practical implementation of SP3.
- Check your insurance coverage for all of your activities. Tip: see 'F3 Insurance Issues' on pages 13-14 in the SP3 "a Childsafe Organisation" guide.

- Consider how the organisation's policy fits with programs run by external bodies in conjunction with the organisation.
- Put child safety as a standing item on the organisation Board meeting agenda, to give opportunity for any SP3 implementation issues to be raised, and to keep the issue at the forefront of organisation Board members' minds.

5. ILLUSTRATED SP3 FRAMEWORK STRUCTURE AND CONCEPT:

Child Protection
Accreditation of Pastors

ACCREDITATION OF CCCVT PASTORS & CHILD SAFETY REGISTER

The Royal Commission into Institutional Responses to Child Sexual Abuse has generated a broad range of recommendations regarding churches, denominational institutions and religious organisations that are now been implemented with the introduction of new regulatory requirements in the areas of child safety policy and procedures. A key component of these new policies and procedures involves the screening and validation of leaders, staff and volunteers who work with or have access to children.

The key issues identified by the Royal Commission that needed to be addressed do not only apply to child safety at the local church level, but also the accountabilities and responsibilities of religious institutions and umbrella organisations that oversee and/or provide affiliation for their associates/local churches.

For instance, the Royal Commission comprehensive case study of child abuse in the Australia Christian Churches (formerly the AOG) concluded with the following observation and finding:

> Members of the congregation have every right to assume that, when they send their children to a youth program or any activity in the life of a church, that those children and young people will be cared for by properly trained, recognised leaders.
>
> The Australian Christian Churches does not require a person to have an Australian Christian Churches credential in order to call themselves 'pastor' in an Australian Christian Churches affiliated church. We conclude that the lack of control over who is able to represent themselves as a pastor of the Australian Christian Churches is a weakness in the necessary safety controls the Australian Christian Churches should have in place to protect children.

In exploring the implications of the Royal Commission for CCCVaT, I have had several discussions with Paul Cameron (Executive Officer - Churches of Christ in Vic/Tas) and Daniel Bullock (Director of Mission & Ministries – Baptist Union of Victoria) regarding BUV's and CCVT's perspective and planned responses. After much investigation and legal consultation both BUV and CCVT have concluded that religious denominational institutions and umbrella organisations will, in the very near future, be held accountable for child safety regulatory compliance in local churches and the screening and accreditation of leaders of all member churches.

It is therefore recommended that CCCVaT implement procedures to ensure that:

- All churches in our movement, both member and non-member, are made aware of child safety statutory policy and regulatory requirements
- All member churches of the association are compliant with child safety regulatory requirements
- We investigate the development and implementation of an accreditation process for all pastors and ministerial staff of CCCVaT member churches.

Child Safety Register:

Jenny Wraight is currently conducting and child safety audit of all member and non-member churches to determine the current compliance status of the churches in our movement. The intention is to, at a minimum, ensure that all the churches in our movement are aware of their statutory obligations and that all the member churches of our association are up-to-date with regulatory requirements including: child protection training; development and adoption of a child safety policy; implementation of a suitable children's program record keeping system; completion of child safety checks for all church staff and volunteers.

Jenny is currently compiling a register that will provide an overview of the child safety compliance status of all churches in our movement.

Accreditation of CCCVT Pastors and Church Staff:

It is the opinion of both the leadership of BUV and CCVT that whilst there is currently no statutory requirement that religious institutions provide screening and accreditation of pastors/ministers, this will be introduced in Victoria in the near future.

CCVT closely parallels CCCVaT in its nature and structure, being more of a network of independently incorporated common-heritage autonomous local churches, rather than a denominational organisation with directive authority and membership obligations, with the exception that they do currently provide an optional formal 'endorsement' process for senior ministers of local churches. With this in mind, I believe we can learn much from CCVT's response to the Royal Commission.

Due to the findings and recommendations of the Royal Commission CCVT believe that they will eventually be required to credential all people appointed to formal ministry roles in a local church, paid or unpaid, such as Senior Pastors/Ministers, Associate Pastors, Families/Children's Pastors, Youth Pastors/Ministers, Chaplains, Church Planters, and student Ministers. Hence, after much consultation, CCVT has developed an accreditation policy. This has been well documented (see attached) and could be used as a model for CCCVaT to develop a similar process and policy.

It is recommended that CCCVaT develop an accreditation policy and process with minimum standards for credentialing of people in recognised ministry roles in our churches. Much discussion and consultation will need to be undertaken regarding the scope of this policy, how to implement the policy at the local church level, and whether or not CCCVaT make credentialing of ministry staff mandatory to membership.

Complaints Guideline

TABLE OF CONTENTS – COMPLAINTS GUIDELINE:

1. INTRODUCTION:

A complaints policy states how your organisation will approach grievances, concerns or complaints. It also outlines the approach taken to resolve complaints or grievances.

The Oxford Dictionary defines a complaint as a statement that something is unsatisfactory or unacceptable, a grievance as a real or imagined cause for complaint, especially unfair treatment and a concern as relate to; be about. For the sake of this guideline and policy the use of the word complaint shall also include grievance and concern. Also for the sake of this policy the use of the word person shall include a person serving in some capacity in the church; whether elected or appointed to the role, employees, volunteers, contractors and sub- contractors and also attendees and visitors to the church.

Matthew 18:15-17 New International Version (NIV)

Dealing With Sin in the Church

15 "If your brother or sister sins, go and point out their fault, just between the two of you. If they listen to you, you have won them over. 16 But if they will not listen, take one or two others along, so that 'every matter may be established by the testimony of two or three witnesses. 17 If they still refuse to listen, tell it to the church; and if they refuse to listen even to the church, treat them as you would a pagan or a tax collector.

2. POLICY:

Your policy is a guide to how to deal with any kind of complaint or dispute resolution and should include:

- What to do when a person has a complaint against another person.
- What a person can do if they have a complaint.
- An outline of the complaint procedure.
- Who is covered by the policy.
- The roles and responsibilities of those involved and their supervisors/managers
- How to make an appeal.
- What happens when a complaint is made.

- Timelines.
- Who else can help.
- A flow chart will assist clarify the process.

2.1 CONTENTS?

The policy should provide clear step-by-step instructions on who the complainant should to speak to.

Initially this should be the immediate manager, who upon receipt of a complaint, should arrange to meet the complainant to talk through the issue and try to resolve the matter between them.

If the complaint is about their immediate manager which the complainant is reluctant to bring the complaint before or meet with or the complainant is not satisfied with their manager's solution to the complaint, then the policy should state who the complainant may discuss the complaint with. Ideally this should be the manager's supervisor or a board member.

It is recommended that the policy should mandate another manager/supervisor or board member be present when meeting with the complainant.

The church's complaints policy should aim to resolve complaints internally. However, if after exhausting all avenues the complainant is not satisfied with proposed resolution, the church should consider using a third party to mediate the matter. This third party could be the local volunteer resource centre, CCCVaT or the Dispute Settlement Centres provide by the governments of Tasmania and Victoria, which offers free mediation services.

Link to Tasmanian Mediation Services

Link to Victorian Mediation Services

2.2 IMPORTANT POLICY PROVISIONS:

- Persons feel that the church is receptive to hearing complaints.
    - A means of aiding this is to ensure the complaints policy to easily accessible for all persons via posting it to the churches intranet or website.
- Complaints are taken seriously
- Complaints are dealt with in a timely manner
- The discussions are amicable and open.
- The parties and their views are respected.
- That the venue and time to air the complaint is satisfactory to all parties.
- That the complainant is made aware that in the event the parties are able to agree on a resolution they have other avenues available to address same.

Complaints Policy

TABLE OF CONTENTS - COMPLAINTS POLICY:

1. INTRODUCTION:

The church is committed to ensuring that behaviours in the workplace are consistent with its biblical grounded values, principles and ethics.

The purpose of this policy is to:

a. Outline the principles the church will follow when dealing with complaints about behaviour in the workplace.

b. Promote harmonious, productive and cooperative relationships in the workplace.

c. Promote the proactive response to workplace complaints in a manner designed to resolve them amicably.

The Oxford Dictionary defines a complaint as a statement that something is unsatisfactory or unacceptable, a grievance as a real or imagined cause for complaint, especially unfair treatment and a concern as relate to; be about. For the sake of this guideline and policy the use of the word complaint shall also include grievance and concern.

Also for the sake of this policy the use of the word person shall include a person serving in some capacity in the church; whether elected or appointed to the role, employees, volunteers, contractors and sub- contractors and also attendees and visitors to the church.

2. POLICY:

This policy applies to all persons serving in some capacity in the church; whether elected or appointed to the role, employees, volunteers, contractors and sub-contractors. The complaints policy and processes are also available to attendee's and visitors to the church where they have a complaint against a person serving in some capacity in the church; whether elected or appointed to the role, employees, volunteers, contractors and sub-contractors.

All persons serving in some capacity in the church or attending and visiting the church should be respectful of other people's gender, culture and views, their physical and mental integrity and disabilities and, converse with gentleness and tolerance when speaking with them.

All complaints are to be treated seriously, dealt with as soon as practicable and conducted in a fair, impartial and professional manner, affording procedural fairness to the parties concerned. The parties are to be informed of the process.

Complaints of **child sex abuse** will be dealt with in accordance with the law, which prescribes they must be reported to the police, the Child Protection Policy and this policy. Where there is a conflict between policies, the law and Child Protection Policy shall prevail.

Anonymous complaints pose a risk of depriving the alleged offender of natural justice and harming their reputation. Such allegations will only be acted on after assessing the seriousness of the allegations, clarity in the detail of what is alleged, the extent to which the allegations are based on reliable information rather than hearsay, the reason for anonymity and other factors. The church will not be able to acknowledge anonymous complaints where there is no way of identifying or contacting the complainant.

This Policy is not intended to create a set of rigid procedures that must be strictly followed when a workplace complaint is raised. The process for dealing with a particular complaint will vary depending on its nature, seriousness and the relevant circumstances. Consequently, this Policy outlines a number of methods that may be used in attempting to address and resolve workplace complaints. These methods may be adapted to accommodate the need for natural justice and expeditiousness.

It is the church's desire to hear and resolve all complaints in a prompt, impartial and just manner. Complainants should attempt to resolve complaints in an informal way with the person directly involved. The method of resolving complaints will differ depending on the specifics of the complaint. The complaint may be informal or formal in nature. All parties involved in a complaint must participate in the resolution of the matter in good faith. Persons of the church are expected to conduct themselves in line with biblical principles. All parties involved are to be treated with respect and impartiality. The Church will abide by legislative responsibilities at all times and reports to authorities when warranted.

3. DEFINITION OF A COMPLAINT:

A workplace complaint is a complaint raised about a person working for the church in an elected, employed or volunteer and a contractor or sub-contractor capacity.

Examples of a complaint include:

a. Conflict with a fellow co-worker.

b. Perceived breach of privacy.

c. Inappropriate behaviour.

d. Perceived unfairness.

e. Bullying.

f. Discrimination.

g. Stress or mental illness.

h. Harassment physical and sexual.

But are not limited to foregoing.

Exclusions: Excluded are complaints between attendees and visitor to the church.

Managing workplace complaints should not be confused with managing the performance of employees, however a complaint can stem from the management process.

4. WORKPLACE COMPLAINTS MANAGEMENT:

4.1 MAKING A COMPLAINT?

The complainant may make an informal or formal complaint.

a. **Informal** complaints may be communicated orally or in writing.

   i. Complainants are to address informal complaints to their immediate manager or in the absence of an immediate manage a responsible person within the church.

b. **Formal** complaints are to be communicated in writing only.

   i. Complainants are to address formal complaints in writing to their immediate manager.

   ii. In the absence of an immediate manager and where the complainant wishes to discuss the complaint with another responsible person in the church, the complaint is be addressed in writing to that person. Ideally that persons should be the manager's supervisor or a member of the board and in the absence of a board the chair of the leadership team.

4.2 PROCESSING COMPLAINTS INFORMAL OR FORMAL COMPLAINTS.

This section establishes how the church's method of resolving workplace complaints, including complaints about how a complaint was managed. It is the church's intention that all complaints will be treated seriously and fairly and, as far as practicable in accordance with this Policy.

Persons of the church are expected to conduct themselves in line with biblical principles. All parties involved are to be treated with respect and impartiality. The principles of natural justice should be observed. This includes that the matter will have a fair hearing and to have a decision made by an unbiased decision-maker. The Church will abide by legislative responsibilities at all times. This includes reporting to authorities when appropriate.

As each complaint will differ, your manager or responsible person allocated to investigate the complaint will determine the most appropriate method of dealing with the complaint. This may vary depending on the nature of the specific complaint and a number of other factors. Note, not all complaints will be about the behaviour of another person, they could be about work related matters.

In appropriate cases, an external party may be appointed to make inquiries in relation to or to investigate the complaint.

As far as reasonably practicable, investigations of complaints will be conducted confidentially. The person dealing with the complaint may discuss the complaint with third parties when this is appropriate.

If allegations raised in the complaint are sustained, the board of the church or leadership team will take any action that it considers appropriate in the circumstances, which may include disciplining or dismissing the person whom the complaint was made against.

a. The manager or responsible person that has received a complaint [orally or in writing] is to make appropriate contact with the complainant to arrange a suitable time and place to hear the complaint.

b. It is recommended that the manager or responsible person request if the complainant is content to have another person present during the hearing.

   i. If the complainant is not content to have another person present, the manager upon assessing the nature of the complaint is determine whether having another person is warranted.

   ii. Where the complainant has requested the presence of another person or the manager or responsible person

has decided the presence of another person is warranted, the parties are to invite a mutually acceptable person.

c. The manager or responsible person is to determine if the complaint has merit and further action warranted.

    i. If the manager or responsible person believes the complaint does not warrant further action, the parties are to attempt to agree upon a solution.

d. The manager or responsible person assigned to the matter is to determine the best method of handling the complaint (which may include, for example, informal or facilitated discussions, mediation, an internal investigation or escalated to Human Resource or an external investigation or mediation service).

e. Where further action is warranted and the compliant:

    i. Involves sexual abuse of a minor, the compliant is to be processed in accordance with the churches Child Protection policy.

    ii. Involves a fellow co-worker, the complaint is to be handled in accordance with the church's Conflict Resolution Policy.

    iii. Involves discrimination, bully or harassment, the complaint is to be handled in accordance with the church's Equal Opportunity, Anti-Discrimination, Anti-Harassment and Bullying Policy.

    iv. Involves stress or mental health issues, the complaint is to be handled in accordance with the church's Mental Health Policy.

    v. Is made against another person in authority, a contractor or subcontractor, an attendee or visitor to the church, the manager or responsible person is to contact the alleged offender and air the complaint.

f. Complaint's Process:

    i. Prior to investigating the complaint, the complainant is to be given a copy of the Complaints Policy.

    ii. The manager or responsible person is to take minutes of the meeting.

    iii. The manager or responsible person will inform the complainant of the likely steps that will be taken in relation to your complaint, including the name(s) and position title(s) of the investigator(s) and the anticipated time frames.

    iv. The manager or responsible person will inform the person(s) about whom the complaint was made about the existence of the complaint and give them an opportunity to respond to the allegations.

    v. The manager or responsible person will inform the complainant and the person(s) about whom the complaint was made and, if the matter is to be investigated, all witnesses, of the confidentiality obligations in relation to the complaint.

    vi. The manager or responsible person will collect any additional information required to properly assess the complaint.

    vii. The manager or responsible person inform the complainant and the person(s) against whom the complaint was made of the outcome and, if appropriate, any proposed action to be taken.

g. Investigating a complaint – Manager and or Responsible Person:

    i. Provide copies of relevant policies and procedures.

    ii. Hear and assess the complaint.

    iii. Determine if another manager or supervisor should be present [recommended].

    iv. Determine what resolution the complainant is seeking.

    v. Determine of the complaint should be reported to a regulatory authority or referred to a third party

mediation service.

vi. Interview the person whom the complaint was made against, if applicable.

vii. Determine if the complaint has legitimacy and requires addressing.

viii. Evaluate any relevant documents and information and consider mitigating factors.

ix. Consult with a more senior manager/supervisor or a board member or leader if unsure.

x. Propose a resolution, where appropriate, with input from the complainant and respondent.

xi. Implement or facilitate the implementation of the resolution, if appropriate and provided its within your capacity to do so.

xii. Document and retain on file the outcomes of the agreed resolution.

xiii. If disciplinary action is required refer the matter to the chair of the board of the church or the leadership team for their determination.

5. VICTIMISATION:

No one must not victimise a person because they made or propose to make a complaint against you or another person, or because they witnessed an incident or provided information in relation to a complaint. Victimisation means subjecting a person to a detriment, for example ostracising an employee.

If you feel that you are being victimised, you should raise it as soon as possible with your direct manager/supervisor or the chair of the board or leadership team.

6. EXTERNAL NOTIFICATION REQUIREMENTS:

In some instances, it may be appropriate or mandatory for the manager or responsible persona assigned to the matter to notify external bodies about the complaint such as: Fair Work Australia, work health and safety, the police or the Australian Federal Police. Notification to an external body will not exclude the church from investigating the matter.

7. APPEALS PROCESS:

In some cases, a formal process of appeal may be available to a person who is not satisfied with the outcome of a decision that affects them and they may request a review of that decision. All inquiries regarding the appeals process should be directed to board or leadership of the church. The appeals process is not available to an employee whose employment has been terminated.

8. MAINTAINING DOCUMENTATION AND CONFIDENTIALITY:

All persons dealing with a complaint should maintain confidential records of conversations (informal and formal) relating to a complaint.

A person making a complaint must maintain the confidentiality of the complaint and must not discuss any information about initiation of the process, the process itself or action taken with anyone else, unless expressly authorised by the board or leadership of the church. Any breach of confidentiality by a person will be regarded as serious and may result in disciplinary action.

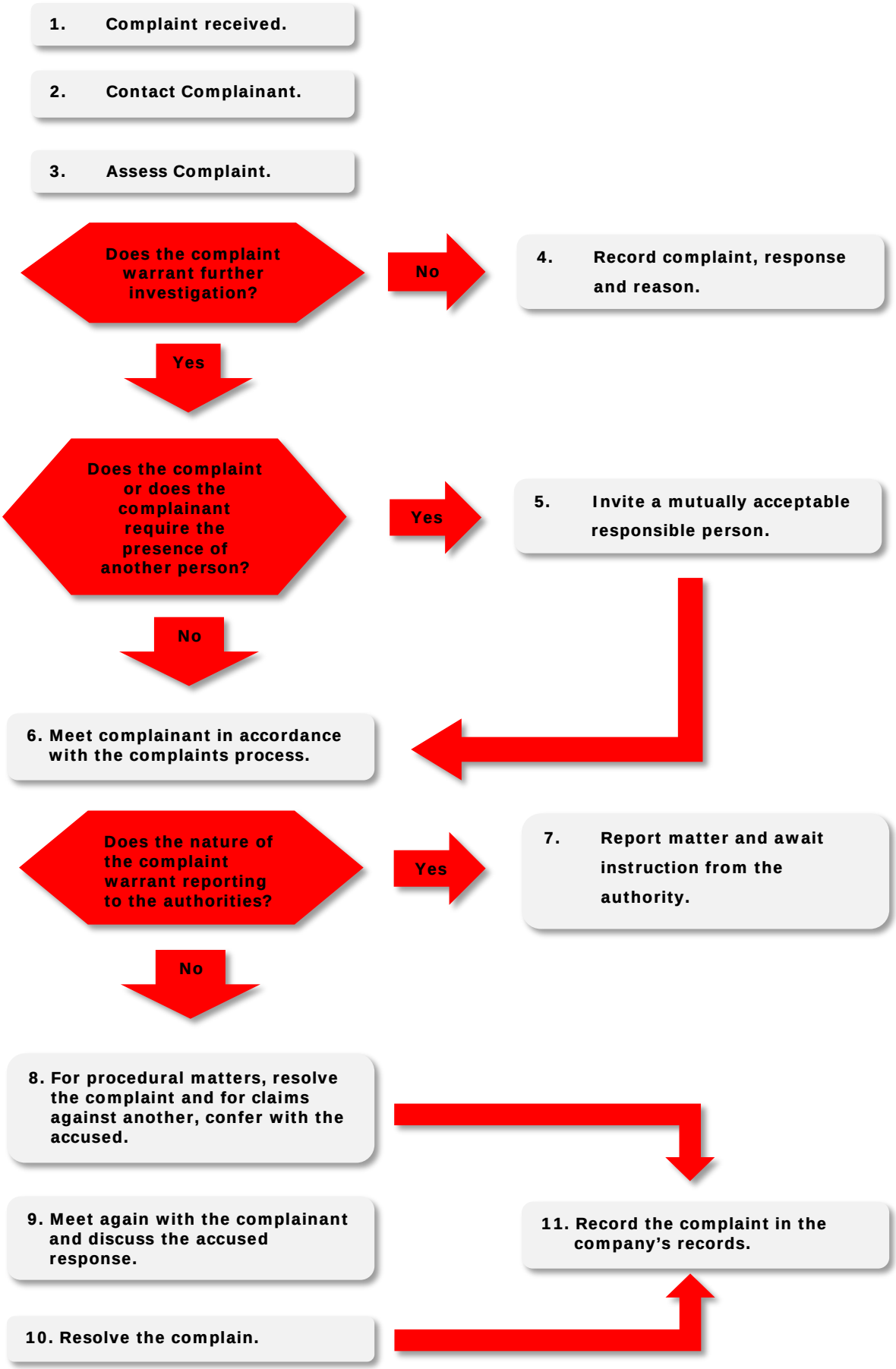
9. QUESTIONS ABOUT THE POLICY:

If you have any questions regarding this policy you are to discuss them with your manager/supervisor.

10. GENERAL:

This policy is not a term of any contract, including any contract of employment and does not impose any contractual duties, implied or otherwise, on the church. This policy may be varied by the church at any time.

11. FLOW CHART:



#Confined Spaces

CONFINED SPACES

Code of Practice - FEBRUARY 2016

TABLE OF CONTENTS

SCOPE AND APPLICATION:

This Code provides practical guidance on how to meet the requirements under the WHS Regulations in relation to work carried out in a confined space. It applies to persons conducting a business or undertaking who have management or control of a confined space, and to designers, manufacturers or suppliers of plant or structures that include, or are intended to include, a confined space.

This Code will help determine when a space is a 'confined space' for the purposes of the WHS Regulations, what the potential hazards are and how to eliminate or minimise the risks when carrying out work in a confined space.

This Code can also be used by workers and their health and safety representatives interested in understanding the hazards and risks associated with confined spaces.

HOW TO USE THIS CODE OF PRACTICE:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to provisions of the WHS Act and Regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION:

Confined spaces pose dangers because they are usually not designed to be areas where people work. Confined spaces often have poor ventilation which allows hazardous atmospheres to quickly develop, especially if the space is small. The hazards are not always obvious and may change from one entry into the confined space to the next.

The risks of working in confined spaces include:

- Loss of consciousness, impairment, injury or death due to the immediate effects of airborne contaminants.
- Fire or explosion from the ignition of flammable contaminants.
- Difficulty rescuing and treating an injured or unconscious person.
- Asphyxiation resulting from oxygen deficiency or immersion in a free-flowing material, such as grain, sand, fertiliser, water or other liquids.

1.1 WHAT IS A CONFINED SPACE?

Regulation 5: A confined space means an enclosed or partially enclosed space that:

- Is not designed or intended primarily to be occupied by a person.
- Is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and

- Is or is likely to be a risk to health and safety from:
  - an atmosphere that does not have a safe oxygen level;
  - contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion;
  - harmful concentrations of any airborne contaminants, or
  - engulfment.

A confined space is determined by the hazards associated with a set of specific circumstances and not just because work is performed in a small space.

Confined spaces are commonly found in vats, tanks, pits, pipes, ducts, flues, chimneys, silos, containers, pressure vessels, underground sewers, wet or dry wells, shafts, trenches, tunnels or other similar enclosed or partially enclosed structures, when these examples meet the definition of a confined space in the WHS Regulations.

What is not a confined space for the purposes of the WHS Regulations?

A confined space does not include a mine shaft or the workings of a mine.

The following kinds of workplaces are also generally not confined spaces for the purposes of the WHS Regulations:

- Places that are intended for human occupancy and have adequate ventilation, lighting and safe means of entry and exit, such as offices and workshops.
- Some enclosed or partially enclosed spaces that at particular times have harmful airborne contaminants but are designed for a person to occupy, for example abrasive blasting or spray painting booths.
- Enclosed or partially enclosed spaces that are designed to be occasionally occupied by a person if the space has a readily and conveniently accessible means of entry and exit via a doorway at ground level, for example:
  - a cool store accessed by a LPG forklift to move stock – although the use of a LPG forklift in a cool store can be hazardous, the door at ground level means that once the alarm is raised, escape and rescue can happen quickly; and
  - a fumigated shipping container with a large ground level opening will facilitate easy escape and rescue.

Trenches are not considered confined spaces based on the risk of structural collapse alone, but will be confined spaces if they potentially contain concentrations of airborne contaminants that may cause impairment, loss of consciousness or asphyxiation.

1.2 WHO HAS HEALTH AND SAFETY DUTIES IN RELATION TO A CONFINED SPACE?

A **person conducting a business or undertaking** has the primary duty under the WHS Act to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

The WHS Regulations include specific obligations on a person conducting a business or undertaking who has management or control of a confined space.

Designers, manufacturers and suppliers of plant or structures that include a space that is intended, or is likely to become, a confined space must eliminate the need for any person to enter a confined space and eliminate the risk of inadvertent entry or, if this is not reasonably practicable, ensure safe means of entry and exit and minimise risks to the health and safety of any person who enters the confined space.

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks that arise from entry into confined spaces.

Workers must take reasonable care for their own health and safety and that their work does not adversely affect the

health and safety of other persons. Workers must comply with any reasonable instructions given relating to confined space entry permits, risk control measures and emergency procedures, and should carry out work in a confined space in accordance with any relevant information and training provided to them.

Emergency service workers are not required to comply with some requirements for entering confined spaces when either rescuing a person or providing first aid to a person in the space (WHS Regulations 67 and 68).

1.3 WHAT IS REQUIRED IN MANAGING RISKS?

Duties in relation to confined spaces include:

- Managing health and safety risks associated with a confined space, including risks when entering, working in, on or near a confined space, as well as the risk of inadvertent entry.
- Ensuring, so far as is reasonably practicable, that a worker does not enter a confined space until all the duties in relation to the confined space have been complied with, for example entry permit requirements.
- Establishing first aid and rescue procedures to be followed in the event of an emergency in the confined space.

The WHS Regulations also set out requirements for specific controls measures including communication and safety monitoring, signs, isolation of connected plant and services, and controls to maintain a safe atmosphere within the confined space.

Regulation 34-38: In order to manage risk under the WHS Regulations, a duty holder must:

- Identify reasonably foreseeable hazards that could give rise to the risk.
- Eliminate the risk so far as is reasonably practicable.
- If it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of control.
- Maintain the implemented control measure so that it remains effective.
- Review, and if necessary revise, risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

This Code includes guidance on how to manage the risks associated with a confined space by following a systematic process that involves:

- Identifying hazards associated with confined spaces.
- Assessing the risks associated with these hazards.
- Implementing risk control measures.
- Reviewing risk control measures.

Guidance on the general risk management process is available in the:

Code of Practice: How to Manage Work Health and Safety Risks.

Consulting your workers:

Section 47: The WHS Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation with workers and their health and safety representatives is a critical part of managing work health and safety risks.

You must consult your workers who are involved in carrying out work in or near a confined space during the process of identifying hazards, assessing risks and implementing control measures.

It is often more effective to involve a team of people in the risk management process to draw on a range of knowledge and experience, for example knowledge of:

- The particular confined space under assessment.
- Any work methods that will be used in or near the confined space.
- Confined space hazards and control measures.

Consulting, co-operating and co-ordinating activities with other duty holders:

> **Section 46:** If more than one person has a duty in relation to the same matter, each person with the duty must, so far as is reasonably practicable, consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter.

Sometimes more than one person conducting a business or undertaking will have the same duty in relation to a confined space. For example, a person who owns the plant or structure that contains the confined space will have management or control of the confined space. A contractor engaged to carry out work in the same space will also have management or control of the confined space at the time that work is being carried out. In these situations, effective communication, co-operation and co-ordination of activities between duty holders is essential to ensure that risks associated with the confined space are eliminated or minimised as far as is reasonably practicable.

Further guidance is available in the:

Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination.

1.4 HOW TO DETERMINE WHETHER A SPACE IS A CONFINED SPACE:

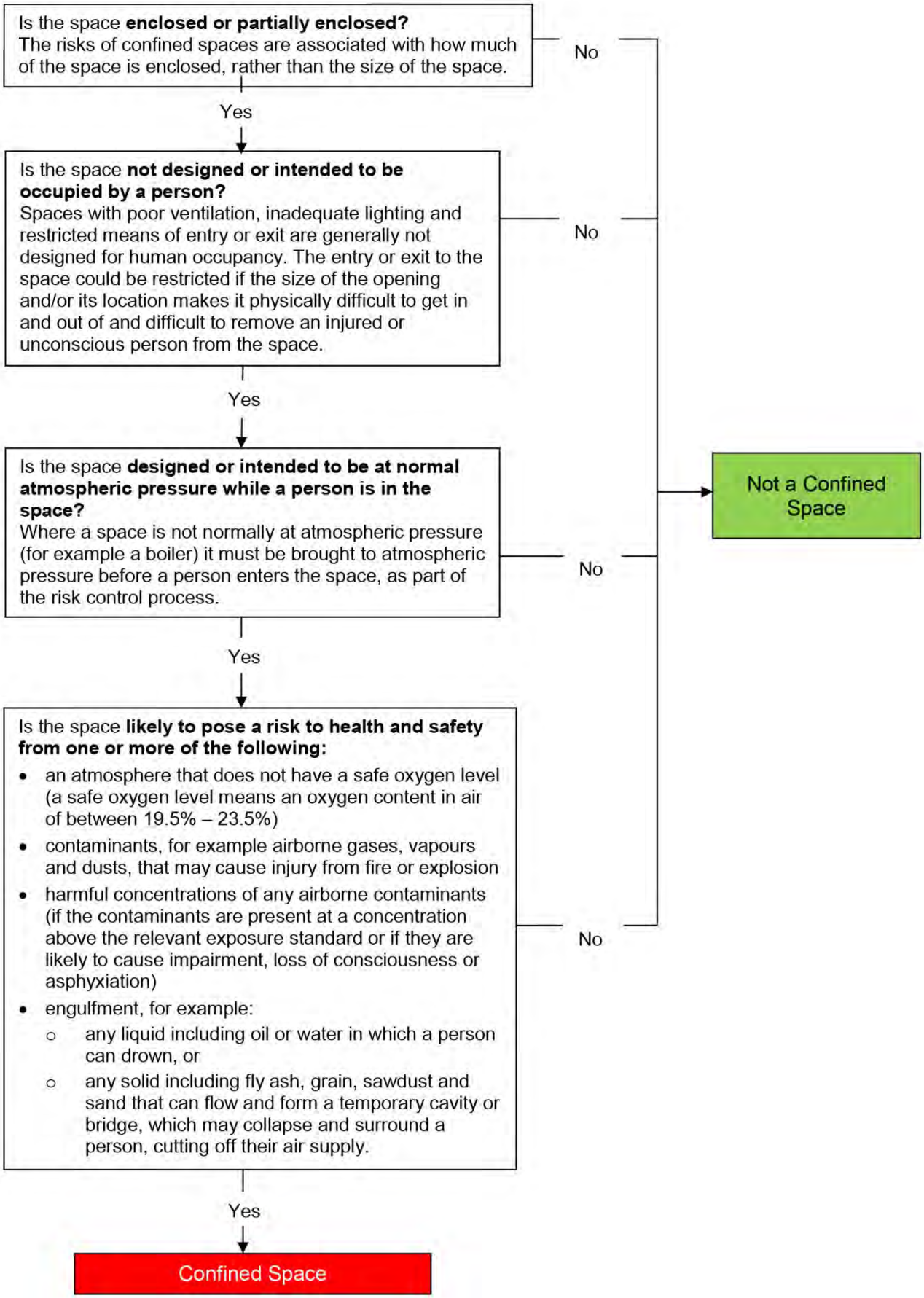
A confined space is determined by the structure and a specific set of circumstances. The same structure may or may not be a confined space depending on the circumstances when the space is entered. Entry to a confined space is considered to have occurred when a person's head or upper body enters the space.

A space may become a confined space if work that is to be carried out in the space would generate harmful concentrations of airborne contaminants.

Temporary control measures such as providing temporary ventilation or achieving a satisfactory pre-entry gas test will not cause a confined space to be declassified. For a confined space to be declassified as a non-confined space, it needs to have undergone sufficient changes in structure and use to eliminate all inherent hazards that define a confined space.

The following flowchart will help to determine whether a space is a 'confined space' for purposes of the WHS Regulations.

Appendix A provides examples to illustrate how a confined space is determined.


Is the space **enclosed or partially enclosed?**
The risks of confined spaces are associated with how much of the space is enclosed, rather than the size of the space.
No
Yes
Is the space **not designed or intended to be occupied by a person?**
Spaces with poor ventilation, inadequate lighting and restricted means of entry or exit are generally not designed for human occupancy. The entry or exit to the space could be restricted if the size of the opening and/or its location makes it physically difficult to get in and out of and difficult to remove an injured or unconscious person from the space.
No
Yes
Is the space **designed or intended to be at normal atmospheric pressure while a person is in the space?**
Where a space is not normally at atmospheric pressure (for example a boiler) it must be brought to atmospheric pressure before a person enters the space, as part of the risk control process.
No
Yes
Is the space **likely to pose a risk to health and safety from one or more of the following:**
• an atmosphere that does not have a safe oxygen level (a safe oxygen level means an oxygen content in air of between 19.5% – 23.5%)
• contaminants, for example airborne gases, vapours and dusts, that may cause injury from fire or explosion
• harmful concentrations of any airborne contaminants (if the contaminants are present at a concentration above the relevant exposure standard or if they are likely to cause impairment, loss of consciousness or asphyxiation)
• engulfment, for example:
o any liquid including oil or water in which a person can drown, or
o any solid including fly ash, grain, sawdust and sand that can flow and form a temporary cavity or bridge, which may collapse and surround a person, cutting off their air supply.
No
Yes
Confined Space
Not a Confined Space

2. ROLE OF DESIGNERS, MANUFACTURERS AND SUPPLIERS:

The design, manufacture or modification of any plant or structure that includes a confined space can significantly affect the risks associated with confined spaces. Thoughtful design can eliminate the need to enter a confined space or eliminate the risk of inadvertent entry. The design stage should consider the whole life cycle of the plant or structure, from manufacture and use through to demolition and disposal.

2.1 ELIMINATING OR MINIMISING THE NEED TO ENTER A CONFINED SPACE:

Regulation 64: A designer, manufacturer, importer or supplier of a plant or structure, and a person who installs or constructs a plant or structure must eliminate the need to enter a confined space and eliminate the risk of inadvertent entry. If this is not reasonably practicable, then:

- The need for any person enter the space must be minimised so far as is reasonably practicable.
- The space must be designed with a safe means of entry and exit.
- The risk to the health and safety of any person who enters the space must be eliminated or minimised as far as is reasonably practicable.

The following features should be incorporated in the design and manufacturing stages:

- Provision of outlets and facilities for cleaning, to eliminate the need for entry.
- Use of lining materials that are durable, require minimal cleaning and do not react with materials contained in the confined space.
- Design of the structure and mechanical parts to provide for safe and easy maintenance, to reduce the need for persons to enter.

2.2 ENTRY AND EXIT:

If it is not reasonably practicable to eliminate the need to enter the confined space or the risk of inadvertent entry, then any risk associated with entry to and exit from the space must be minimised. Entry to and exit from a confined space is safer when openings (access points) are large and located in a position that allows for persons and equipment to pass easily through them.

Where relevant, the following features should be incorporated at the design, manufacture and installation stages:

- Access points (including those within the confined space, through divisions, partitions or obstructions) should be large enough to allow people wearing the necessary protective clothing and equipment to pass through, and to permit the rescue of all people who may enter the confined space.
- A safe means of access to and within the confined space, such as fixed ladders, platforms and walkways should be provided. Further guidance is available in *AS 1657 Fixed platforms, walkways, stairways and ladders – Design, construction and installation*.
- Access points should be unobstructed by fittings or equipment that could impede rescue and should also be kept free of any obstructions during work in the confined space. If equipment such as electrical cables, leads, hoses and ventilation ducts are required to pass through an access hole, a second access point may be needed.
- There should be enough access points to provide safe entry to and exit from the confined space. For example, the spacing of access holes on sewers (or in the case of large gas mains, the absence of such access holes over considerable lengths) may affect both the degree of natural ventilation and the ease with which persons can be rescued.

3. HOW TO IDENTIFY THE HAZARDS:

Identifying hazards involves finding all of the things and situations that could potentially cause harm to people. The types of substances previously stored in a confined space (however briefly) will indicate the sorts of hazards that may be present. Substances stored in a confined space may result in a lack of oxygen, airborne contaminants or a flammable atmosphere within the confined space. Other hazards may arise from work activities, products or by-products in or around the confined space.

Regulation 34: In managing the risks associated with a confined space, the person conducting the business or undertaking must identify reasonably foreseeable hazards that could give rise to the risk.

3.1 WHAT HAZARDS ARE ASSOCIATED WITH A CONFINED SPACE?

Restricted entry or exit

Small entrances and exits make it difficult to rescue injured workers or to get equipment in or out of the confined space. In some cases, entrances and exits may be very large but their location can make them difficult to access. For example, accessing pits or openings high up in silos may require the use of ladders, hoists or other devices, and escape and rescue from such spaces may be difficult in emergency situations.

Harmful airborne contaminants

The following table illustrates the kinds of harmful atmospheres that may be present in a confined space, and how they may be created.

Source	Examples
Substance stored in the confined space or its by-product(s)	• build-up of hydrogen sulphide in sewers and pits • release of toxic substances e.g. hydrogen sulphide in tanks of decomposing organic material, especially when the material is disturbed
Work performed in the confined space	• use of paints, adhesives, solvents or cleaning solutions • welding or brazing with metals capable of producing toxic fumes • exhaust fumes from engines used in the confined space • painting or moulding glass-reinforced plastics
Entry of natural contaminants e.g. groundwater and gases into the confined space from the surrounding land, soil or strata	• acid groundwater acting on limestone with the potential to produce dangerous accumulations of carbon dioxide • methane released from groundwater and from decay of organic matter
Release of airborne contaminants	• when sludge, slurry or other deposits are disturbed or when scale is removed
Manufacturing process	• residues left in tanks, vessels etc., or remaining on internal surfaces can evaporate into a gas or vapour

Source	Examples
Entry and accumulation of gases and liquids from adjacent plant, installations, services or processes	• the contamination of underground confined spaces by substances from plant in the vicinity of the confined space • carbon monoxide from the exhaust of LPG-powered forklifts operating in, or in the vicinity of, the confined space

Unsafe oxygen level:

Air normally contains 21% oxygen by volume, although oxygen levels of 19.5% — 23.5% by volume are considered to be safe.

Some situations can cause the level of oxygen to dramatically decrease, leading to an oxygen-deficient atmosphere and possible asphyxiation. This may occur, for example, if oxygen in the atmosphere is:

- Displaced by gases produced during biological processes, for example, methane in a sewer.
- Displaced during purging of a confined space with an inert gas to remove flammable or toxic fumes.
- Depleted inside metal tanks and vessels through surface oxidation (for example, when rust forms).
- Consumed during combustion of flammable substances.
- Absorbed or reacts with grains, wood chips, soil or chemicals in sealed silos.

Too much oxygen can increase the risk of fire or explosion. Oxygen-enriched atmospheres may occur if:

- Chemical reactions cause the production of oxygen, for example certain reactions with hydrogen peroxide.
- There is a leak of oxygen from an oxygen tank or fitting while using oxy-acetylene equipment.

Fire and explosion:

A fire or explosion requires the presence of three elements: an ignition source, air and a fuel (gas, vapour or mist) capable of igniting. A flammable atmosphere is one in which the flammable gas, vapour or mist is likely to exceed 5% of its lower explosive limit (LEL).

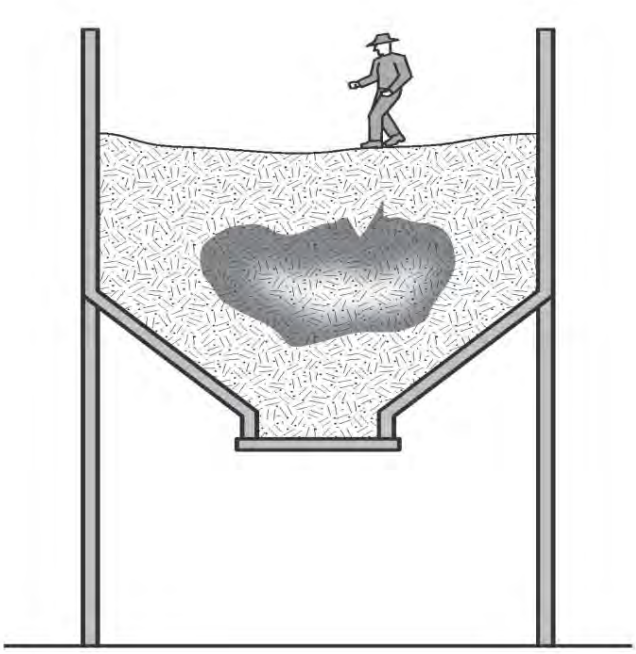
Flammable atmospheres in confined spaces may result from the evaporation of a flammable residue, flammable materials used in the space, a chemical reaction (such as the formation of methane in sewers), or from the presence of combustible dust (such as that in flour silos).

If an ignition source, such as a sparking electrical tool or static on a person, is introduced into a space containing a flammable atmosphere, an explosion is likely to result.

Engulfment:

Engulfment means to be swallowed up in or be immersed by material, which may result in asphyxiation. Examples of materials that may pose a risk of engulfment include plastics, sand, liquids, fertiliser, grain, coal, coal products, fly ash, animal feed and sewage. Stored materials such as sand and grain can form a crust or bridge when a container is emptied from below, leaving the top layer in place. Workers walking on the bridge or working below the bridge on the floor of the container may be engulfed if a bridge collapses (see Figure 1).

Figure 1 Example of 'bridging' which may result in engulfment



3.2 OTHER HAZARDS:

Uncontrolled introduction of substances:

The uncontrolled introduction of substances such as steam, water or other liquids, gases or solids may result in drowning, being overcome by fumes or other harm depending on the nature of the substance.

Vehicles and LPG forklifts operating close to the opening of the confined space can cause a build-up of exhaust gases, including carbon monoxide, in the space.

Biological hazards:

Contact with micro-organisms, such as viruses, bacteria or fungi, may result in infectious diseases, dermatitis or lung conditions such as hypersensitivity pneumonitis. Sewers, grain silos and manure pits are examples of confined spaces where biological hazards may be present.

Mechanical hazards:

Exposure to mechanical hazards associated with plant may result in entanglement, crushing, cutting, piercing or shearing of parts of a person's body. Sources of mechanical hazards include plant such as augers, agitators, blenders, mixers and stirrers.

Electrical hazards:

Electrical hazards may cause electrocution, shocks or burns, and can arise from cables, transformers, capacitors, relays, exposed terminals and wet surfaces where electrical circuit and electrically powered plant are used.

Skin contact with hazardous substances:

The nature of a confined space could give rise to an increased likelihood of skin contact with surface contaminants. Skin contact with hazardous substances may result in immediate health effects such as burns, irritation or allergic dermatitis, or longer-term systemic effects.

Noise:

Noise generated in a confined space from the use of plant, the work method or process may be amplified due to

reflections off hard surfaces. Exposure to hazardous noise may result in hearing loss, tinnitus and other non-auditory health effects. Hazardous noise may also prevent workers hearing warning signals and distract workers from their work.

Further guidance is available in the:

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

Manual tasks:

Hazards arising from manual tasks may be exacerbated by physical constraints associated with working in a confined space. Additional hazards may arise from the use of personal protective equipment that restricts movement, grip and mobility.

Further guidance is available in the Code of Practice: Hazardous Manual Tasks.

Radiation:

The health effects associated with radiation depend on the type of radiation involved. Sources of radiation include radioactive sources, x-rays, lasers, welding flash, radio frequency and microwaves.

Environmental hazards

Environmental hazards associated with work in a confined space may cause or contribute to harm. Examples of environmental hazards include:

- Heat or cold stress arising from the work, process or conditions.
- Slips, trips and falls arising from slippery surfaces or obstacles.
- Inadequate lighting.

Further guidance is available in the:

Code of Practice: Managing the Work Environment and Facilities.

Hazards outside the confined space:

Where the confined space has a vertical opening, there is a risk that people could fall in.

Traffic hazards are a concern where confined space entrances or exits are located on footpaths or roads. There is the potential for workers entering or exiting the space to be struck and injured by vehicle traffic.

Work done outside the space, but near openings to it, can contaminate the atmosphere inside the space. A common example is the exhaust gases from an internal combustion engine. There may also be potential for fire or explosion where hot work is done in areas next to confined spaces that contain flammable atmospheres.

Additional physiological and psychological demands:

Working in a confined space may impose additional physiological and psychological demands over and above those encountered in a normal working environment. Consideration should be given to a worker's:

- Physical ability.
- Ability to work in a restrictive space (for example claustrophobia).
- Ability to wear the personal protective equipment required to do the work (for example respirators).

4. HOW TO ASSESS THE RISKS:

A risk assessment involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening.

Regulation 66: A person conducting a business or undertaking must assess health and safety risks associated with the identified hazards of the confined space.

The risk assessment for a confined space must be undertaken by a competent person and be recorded in writing. The risk assessment must be reviewed and revised whenever any risks change.

Regulation 77: A copy must be kept for 28 days, or if a notifiable incident occurs in connection with the work to which the assessment relates, for 2 years after the incident occurs.

When undertaking a risk assessment to determine the risks requiring control the following factors should be considered:

- The atmosphere in the confined space, including whether testing or monitoring is to be undertaken.
- The risk of engulfment of a person.
- All proposed work activities, particularly those that may cause a change to the conditions in the confined space.
- The number of persons occupying the space.
- The soundness and security of the overall structure and the need for lighting and visibility.
- The identity and nature of the substances last contained in the confined space.
- Any risk control measures needed to bring the confined space to atmospheric pressure.
- The number of persons required outside the space:
    - to maintain equipment essential for the task being undertaken within the confined space;
    - to provide continuous communication with the persons within the confined space; and
    - to properly initiate emergency response procedures
- Risks associated with other hazards, such as noise or electricity.
- Arrangements for emergency response, for example first aid and resuscitation.
- The physiological and psychological demands of the task and the competency of persons involved in the tasks or emergency response duties.
- The adequate instruction of persons in any required procedure, particularly those that are unusual or non-typical, including the use and limitations of any personal protective equipment and other equipment to be used.
- The availability and adequacy of appropriate personal protective equipment and emergency equipment for all persons likely to enter the confined space.
- The need for additional risk control measures, including:
    - prohibiting hot work in adjacent areas;
    - prohibiting smoking and naked flames within the confined space and adjacent areas;
    - avoiding contamination of breathing air from operations or sources outside the confined space, for example, from the exhaust of an internal combustion engine;
    - prohibiting movement of equipment in adjacent areas, for example forklifts; and
    - prohibiting spark-generating equipment, clothing and footwear.
- Whether purging or cleaning in the confined space is necessary.
- Whether hot work is necessary.

- Conditions that could impede entry and exit or the conduct of the tasks in the confined space, for example, plant layout, dimensions, manual handling and ergonomic aspects of the task activity.

Atmospheric testing and monitoring:

Testing and monitoring the atmosphere in a confined space is a routine part of determining appropriate control measures.

Regulation 50: A person conducting a business or undertaking must ensure that air monitoring is carried out to determine the airborne concentration of a substance or mixture to which an exposure standard applies if:

- there is uncertainty whether or not the airborne concentration of the substance or mixture exceeds the relevant exposure standard, or
- monitoring is necessary to determine whether there is a risk to health.

Any air monitoring in a confined space should be carried out by a competent person using a suitable, correctly calibrated gas detector. It may be necessary to test the atmosphere for:

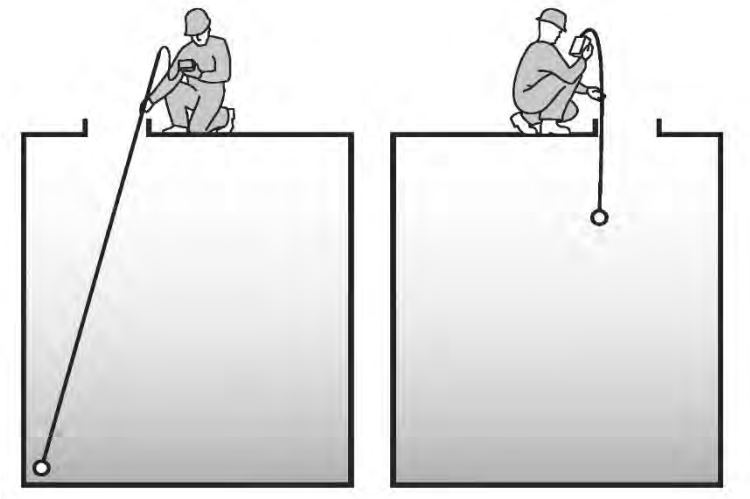
- Oxygen content.
- Airborne concentration of flammable contaminants.
- Airborne concentration of potentially harmful contaminants (for example, hydrogen sulphide and carbon monoxide).

A person's senses should never be used to determine if the air in a confined space is safe. Many toxic or flammable gases and unsafe oxygen levels cannot be detected using one's senses.

Initial testing should be done from outside the confined space by inserting a sample probe and/or portable gas detection device at appropriately selected access holes, nozzles and openings. Because contaminants can settle at different levels, each part of the confined space should be tested – side to side and top to bottom (see Figure 2).

For example, some gases (such as hydrogen sulfide) are heavier than air and in unventilated areas will settle to the bottom of the space, while other gases (such as methane) are lighter than air and will collect at the top of the space. Testing should be carried out on a sufficient number of points to accurately reflect areas of the space that is likely to be accessed.

Figure 2 Atmospheric testing of remote regions and different levels within the confined space.



Lighter gases may be vented into the breathing zone of the person conducting the tests. Some gases may be dissolved in liquids and released when the liquid is disturbed or a crust over the liquid is broken and it may therefore be necessary to agitate liquids before monitoring.

If it is necessary to enter the space to test remote regions away from entrances or access holes, then air-supplied respiratory equipment should be worn and the entry must be undertaken in accordance with the WHS Regulations using a confined space entry permit.

Re-testing and continuous monitoring of the air may be necessary if the risk assessment indicates that conditions may change due to the work being done or the disturbance of hazardous material in the confined space.

Generic risk assessment:

A single (or generic) risk assessment may be carried out for a class of confined spaces in a number of different work areas or workplaces where the confined spaces are the same. This will only be appropriate if all of the hazards being covered are the same. A risk assessment must be carried out on individual confined spaces if there is any likelihood that a worker may be exposed to greater, additional or different risks.

A confined space entry permit may be used as a record of the risk assessment.

5. HOW TO CONTROL THE RISKS:

The most important step in the risk management process involves controlling risks by eliminating them so far as is reasonably practicable, or if that is not possible, by minimising the risks so far as is reasonably practicable.

5.1 THE HIERARCHY OF CONTROL:

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the *hierarchy of control.* The WHS Regulations require duty holders to work through this hierarchy to achieve the highest level of protection that is reasonably practicable in the circumstances.

Eliminate the risk:

The most effective control measure is to eliminate the risk, for example, by eliminating the need to enter a confined space.

Minimise the risk:

If it is not reasonably practicable to eliminate the risk, you must minimise the risks so far as is reasonably practicable by:

- Substituting the hazard giving rise to the risk with something that is safer.
- Isolating the hazard from any person exposed to it.
- Implementing engineering controls.

If there is a remaining risk, it must be minimised so far as is reasonably practicable by implementing administrative controls, and if a risk still remains, then suitable personal protective equipment must be provided and used. These two types of control measures, when used on their own, tend to be least effective in minimising risks because they rely on human behaviour and supervision.

Some risk control measures are mandatory for confined spaces.

Regulation 66: In managing risks associated with a confined space, all relevant matters must be considered, including:

- Whether the work can be carried out without the need to enter the confined space.
- The nature of a confined space.
- If the hazard is associated with any airborne contaminant or unsafe level of oxygen.
- The work to be carried out in the confined space, the range of methods by which the work can be carried out, and the proposed method.

- The type of emergency procedures required.

5.2 ELIMINATE THE NEED TO ENTER A CONFINED SPACE:

Risks associated with work in a confined space must be eliminated so far as is reasonably practicable, and therefore the first question is: can the work be carried out without entering the confined space?

Work could be carried out from outside the confined space by:

- Installing fixed or temporary cleaning devices for example spray balls using high-pressure hoses inserted through an access hatch to clean the inside of a tank.
- Using remote cameras or a mirror attached to a probe for internal inspection of vessels.
- Using remotely operated rotating flail devices, vibrators or air purgers to clear blockages in silos.
- Using a hook, long-handled clasp or magnet on a string to retrieve an object dropped into a confined space.

5.3 MINIMISE THE RISKS:

If entering a confined space cannot be avoided, then a safe system for working inside the space must be implemented. The identified hazards will help determine what controls are needed to minimise any risk associated with work in the confined space. Under the WHS Regulations, the following matters must be considered:

The nature of the space:

The nature of a confined space may contribute to the risks associated with it, for example:

- Whether the number, size and location of entrances and exits are adequate to enable the rapid exit and rescue of workers from the space.
- The temperature of the space so that it will not cause heat stress.
- Adequate lighting, if there is poor visibility.

The concentration of oxygen or airborne contaminants:

The level of oxygen and airborne contaminants is a significant contributor to the risk of working in a confined space, therefore:

- The level of oxygen should be maintained at a safe level and any airborne contaminants in the space are minimised by ventilating prior to and/or during entry.
- Any changes that may occur to oxygen or airborne contaminants are determined by testing the atmosphere.
- Where the atmospheric conditions cannot be maintained at a safe level, appropriate respiratory protective equipment must be provided.

The work and work method:

Consideration should be given to whether the proposed work or work process will introduce any new hazards or contribute to the risks of working in the confined space. Ignition sources must not be introduced into a space that contains a flammable atmosphere.

Work processes should:

- Minimise the release of harmful airborne contaminants into the space.
- Reduce the time spent in the space or the number of people that have to enter the space.
- Eliminate the risk of engulfment.

Consider any risks associated with the use of personal protective equipment (PPE) in a confined space. Using PPE may

introduce new risks for those working in the space, for example the weight or discomfort of protective clothing and hearing protection.

Emergency procedures:

When things go wrong in a confined space, people may be exposed to serious and immediate danger. Effective arrangements for raising the alarm and carrying out rescue operations in an emergency are essential (refer to Chapter 6 of this Code).

5.4 ENTRY PERMITS:

A confined space entry permit provides a formal check to ensure all elements of a safe system of work are in place before people are allowed to enter the confined space. It also provides a means of communication between site management, supervisors and those carrying out the work and ensures that the person conducting the business or undertaking has checked and authorised the entry to the confined space and it is safe to proceed.

Regulation 67: A person conducting a business or undertaking must not allow or direct a worker to enter a confined space to carry out work unless the person has issued a confined space entry permit for the work.

The permit must be completed in writing by a competent person and:

- Specify the confined space to which the permit relates.
- Record the names of persons permitted to enter the confined space and the period of time that the work will be carried out.
- Set out risk control measures based on the risk assessment.
- Contain space for an acknowledgement that work in the confined space has been completed and all persons have left the space.

Regulation 77: The permit must be kept until the work is completed, or if a notifiable incident occurs, for at least 2 years after the confined space work to which the permit relates is completed.

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

A confined space entry permit must be issued for each entry into the confined space. Each permit only applies to one confined space and allows one or more workers to enter that space. A competent person who directs and supervises the work should be nominated and authorised to issue the permit on behalf of the business or undertaking.

A confined space entry permit is also required when a person enters a confined space to conduct the initial hazard identification or risk assessment. The permit may need to be revised after the risk assessment is completed. The confined space entry permit must list the following:

Requirement	
Confined space to which the permit applies	• The permit form should be designed and completed in such a way as to enable clear identification and recording of the space that each permit applies to. • A single permit can be used for multiple entries into a space and can be used where there is more than one access point into a single space.
Name of any worker permitted to enter the	

Requirement	
space	
Period of time that the permit is in operation	• A permit may be required for varying periods of time depending on the time required to complete the work being carried out in a confined space. • The permit should be re-validated if the person with direct control of work in the space changes, a break in work continuity occurs, changes are made to the work that introduce hazards not addressed by the current permit, or new controls measures are needed.
Measures to control the risk	• List the control measures that must be implemented before work commences, for example the isolation of plant and services, purging, ventilation, atmospheric testing, cleaning and signage. • List the control measures that must be implemented or continued while work is being done in the space, e.g. ventilation, continuous monitoring, respiratory protective equipment and personal protective equipment. • List any equipment to be taken into the confined space, including any exclusions such as ignition sources.

The entry permit must be used as a written record that all workers have exited the confined space on completion of the work. It should be displayed in a prominent place to facilitate signing and clearance. Each worker must be able to understand the entry permit.

The information on the entry permit may be used as a suitable record of the risk assessment that has been carried out. An example of an entry permit is provided at Appendix B.

5.5 ISOLATION:

All potentially hazardous services should be isolated prior to any person entering the confined space.

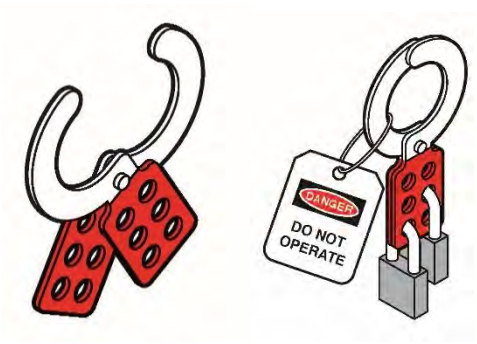
Isolate to prevent:

- The introduction of contaminants or conditions through piping, ducts, vents, drains, conveyors, service pipes and fire protection equipment.
- The activation or energising of machinery in the confined space.
- The activation of plant or services outside the confined space that could adversely affect the space (for example heating or refrigerating methods).
- The release of any stored or potential energy in plant.
- The inadvertent use of electrical equipment.

If liquids, gases or vapours could enter the confined space the pipe work should be physically isolated.

Isolation measures, for example physically locking, tagging, closing and blanking (see *Figure 3*) should be supervised or checked at each isolation point. Isolation measures should be supported by systems to ensure that the isolation measures are not removed until all work is complete and all workers have left the space.

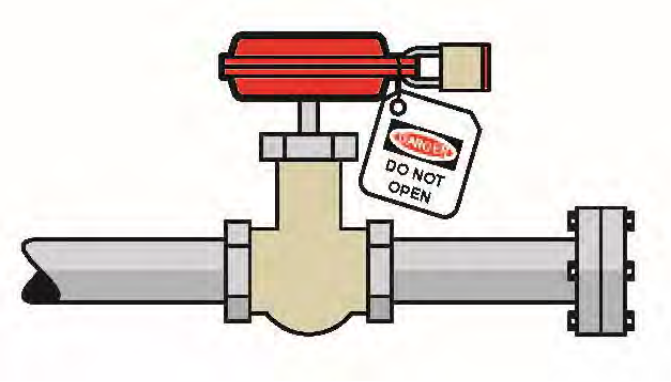
Figure 3 Example of tag and lockout with the padlocks of two workers.



Methods of isolation from materials, contaminants or conditions include isolating in accordance with one of the methods described below or by an alternative method ensuring at least an equivalent level of safety:

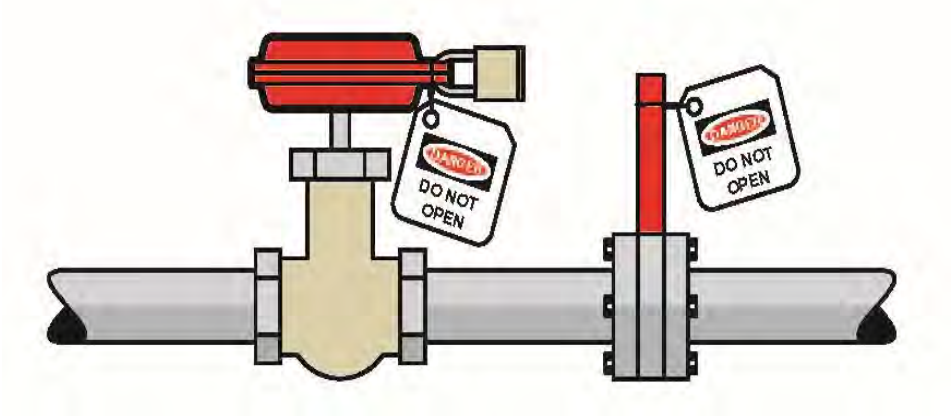
- Removing a valve, spool piece or expansion joint in piping leading to the confined space (as close as practicable to the space) and blanking or capping the open end of the piping (see *Figure 4*). The blank or cap should be tagged to indicate its purpose. Blanks or caps should be made of a material that is compatible with the liquid, vapour or gas with which they are in contact. The material should also have sufficient strength to withstand the maximum operating pressure, for example surges, which can build up in the piping.

Figure 4 Open end of pipe capped. Nearest valve closed locked and tagged.



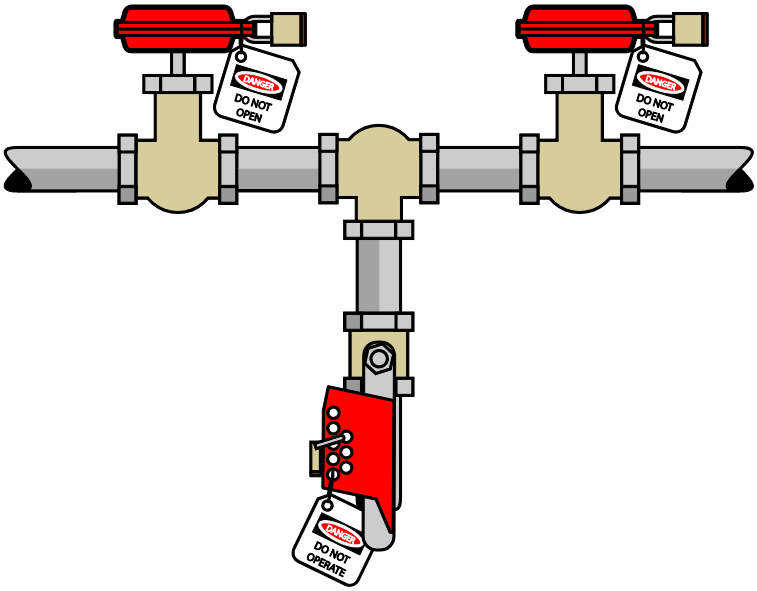
- Inserting a suitable full-pressure spade or blank in piping between the flanges as close as practicable to the confined space (see Figure 5). The full-pressure spade or blank should be tagged to indicate its purpose.

Figure 5 Insertion of full pressure spade or blank. Nearest valve closed, locked and tagged. Spade is also tagged to indicate its purpose.



- Closing, locking and tagging at least two valves in the piping leading to the confined space (see Figure 6). A drain or vent valve between the two closed valves should be locked open to atmosphere as part of this method.

Figure 6 Closing, locking and tagging at least two valves



Before entry is permitted to any confined space that can move, or in which agitators, fans or other moving parts that may pose a risk to workers are present, the possibility of movement should be eliminated.

Equipment or devices with stored energy, including hydraulic, pneumatic, electrical, chemical, mechanical, thermal or other types of energy, should be reduced to a zero energy condition so that no energy is left in devices and systems that could cause injury or illness.

If the confined space has agitators, blades and other moving equipment, consider chocking, wedging, chaining or removing these parts. Alternatively de-energise the equipment, lockout and tag out machinery, mixers, agitators and other equipment containing moving parts in the confined space. This may require additional isolation, blocking or de-energising of the machinery itself to guard against the release of stored energy.

When a lock is used, the key should be kept in the possession of the person placing the lock. Spare keys should not be accessible except in emergencies. The tag should indicate that a person is in the confined space and that such isolation should not be removed until all people have left the confined space.

Examples where this procedure may be used include:

- An open circuit breaker or open isolating switch supplying electrical power to equipment with hazardous moving parts
- Where a power source cannot be controlled readily or effectively, requiring a belt or other mechanical linkage to be disconnected and tagged.

5.6 ATMOSPHERE:

A safe atmosphere must be ensured, so far as is reasonably practicable, during work in a confined space. A safe atmosphere in a confined space is one that:

- Has a safe oxygen level.
- Is free of airborne contaminants or any airborne contaminants are in concentrations below their allowable exposure standard (if any).
- Any flammable gas or vapour in the atmosphere is at concentrations below 5% of its LEL.

A safe atmosphere can be achieved within the confined space using methods such as cleaning, purging and ventilation.

Purging:

Purging is done using an inert gas, such as nitrogen, to clear flammable gases or vapours before work in the confined space begins.

After purging, the confined space should be adequately ventilated with sufficient fresh air to ensure that the inert gas is removed. Purging should be done in a way that ensures any contaminants removed from the confined space are expelled to a location where they present no further risk. Atmospheric testing should be carried out before entry to check that the ventilation has been effective.

When flammable contaminants are to be purged, purging and ventilation equipment designed for use in hazardous areas must be used. A hazardous area is an area in which an explosive atmosphere is present, or may be expected to be present, in quantities that may require special precautions for the construction, installation and use of potential ignition sources.

The WHS Regulations prohibit pure oxygen or gas mixtures with oxygen in concentration greater than 21% by volume being used for purging or ventilating a confined space because of the risk of increased flammability.

The space must be purged where a risk assessment identifies the potential for the confined space to contain an unacceptable level of contaminants.

Ventilation:

Ventilation of a confined space with fresh air, by natural, forced or mechanical means, may be necessary to establish and maintain a safe atmosphere and temperature for as long as anyone is in the confined space.

If the confined space has sufficient openings then natural ventilation may be adequate, but in most cases mechanical ventilation is likely to be needed.

Consideration should also be given to where the fresh air is drawn from and where the exhaust air is finally vented to, so that the fresh air is not contaminated either by exhaust air or by other pollutants, and the exhaust air does not cause other risks.

Mechanical ventilation may be either local exhaust ventilation (LEV) or dilution ventilation. LEV is effective where the source of contaminant generation is localised, the extraction point can be located close to the source and adequate make-up air is available (for example, capture or extraction of welding fume).

Where dilution ventilation is used, air needs to be introduced in a way that will ensure effective circulation throughout the confined space, taking account of the configuration of the space, the position of the openings and the properties of the contaminants.

During operations likely to generate contaminants, mechanical ventilation equipment may not be adequate or sufficiently reliable to maintain contaminants at acceptable levels or to ensure a safe oxygen level. Where mechanical ventilation equipment is likely to be necessary to maintain acceptable contaminant levels in a confined space, the equipment should:

- Be monitored to ensure continuous operation while the confined space is occupied
- Have the controls (including any remote power supply) clearly identified, tagged and protected to guard against unauthorised interference.

Flammable gases and vapours:

Regulation 72: A person conducting a business or undertaking must, while work is being carried out in a confined space, ensure that the concentration any flammable gas, vapour or mist in the atmosphere of the space is less than 5% of its LEL, so far as is reasonably practicable.

If it is not reasonably practicable, and the concentration of any flammable gas, vapour or mist in the atmosphere of the confined space:

- Is equal to or greater than 5% but less than 10% of its LEL—the person must ensure that any worker is immediately removed from the space unless a suitably calibrated, continuous-monitoring flammable gas detector is used in the space.
- Is equal to or greater than 10% of its LEL—the person must ensure that any worker is immediately removed from the space.

Where a flammable atmosphere may exist in a confined space and there is a risk of fire and explosion, all ignition sources in the vicinity must be eliminated.

Examples of potential ignition sources, both inside and outside the space, include:

- Open flames and hot surfaces.
- Electrical equipment.
- Internal combustion engines.
- Metal tools striking metal surfaces.
- Spark-producing equipment for example grinding wheels.
- Static electricity.

Respiratory protective equipment:

If it is not reasonably practicable to ensure the confined space contains a safe oxygen level, or safe levels of airborne contaminants, then appropriate respiratory protective equipment must be provided. The respiratory protective equipment should be provided and worn in situations where there is no exposure standard for a substance, or where the substance is present in an unknown concentration.

Respiratory protective equipment refers to a range of breathing equipment, including air-supplied and self-contained breathing apparatus. The appropriate respiratory protective equipment should be based on the level and type of contaminants and the work to be done. Whenever there is any doubt about the type of respiratory protective equipment required,
a conservative approach should be adopted (for instance, use air-supplied respiratory equipment).

Further guidance is available in *AS/NZS 1715: Selection, use and maintenance of respiratory protective devices.*

5.7 COMMUNICATION AND SAFETY MONITORING:

Regulation 69: The person conducting a business or undertaking must ensure that a system of work is provided that includes:

- Continuous communication with the worker from outside the confined space.
- Monitoring conditions within the confined space by a standby person who is in the vicinity of the confined space, and if practicable, observing the work being carried out.

A communication system is needed to enable communication between people inside and outside the confined space and to summon help in an emergency.

Depending on the conditions in the confined space, communication can be achieved by voice, radio, hand signals or other suitable methods.

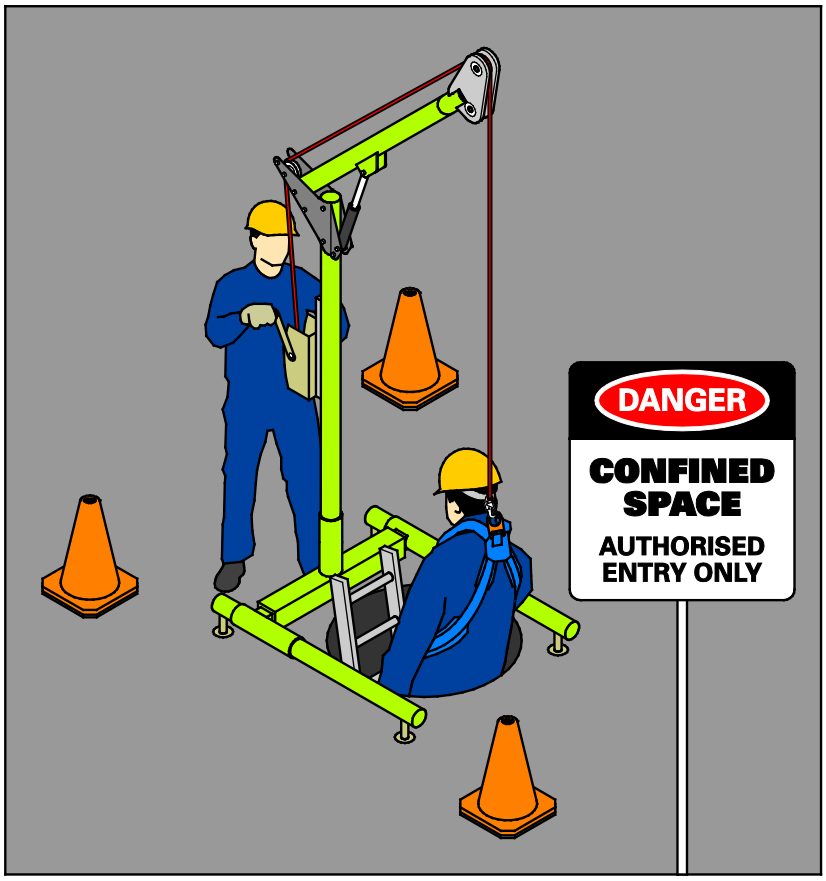
Before a worker enters a confined space, a standby person must be assigned to continuously monitor the wellbeing of

those inside the space, if practicable observe the work being carried out and initiate appropriate emergency procedures when necessary (see *Figure 7*).

The standby person should:

- Understand the nature of the hazards inside the particular confined space and be able to recognise signs and symptoms that workers in the confined space may experience.
- Remain outside the confined space and do no other work which may interfere with their primary role of monitoring the workers inside the space.
- Have all required rescue equipment (for example, safety harnesses, lifting equipment, a lifeline) immediately available.
- Have the authority to order workers to exit the space if any hazardous situation arises.
- Never enter the space to attempt rescue.

Figure 7 Standby person monitoring the confined space with rescue equipment and sign in place



5.8 ENTRY AND EXIT PROCEDURES:

For the entire period the confined space entry permit is valid, procedures should be in place to indicate when any worker is in the space, for example by using tags, a system of signing in and out on the entry permit, or having a standby person record who is in the space.

5.9 SIGNS AND BARRICADES:

Before any work in relation to a confined space starts, signs must be erected to prevent entry of persons not involved in the work.

Signs must warn against entry by people other than those who are listed on the confined space entry permit, and must

be placed at each entrance to the confined space. Signs must be in place while the confined space is accessible, including when preparing to work in the space, during work in the space and when packing up on completion of the work.

Signposting alone should not be relied on to prevent unauthorised entry to a potential confined space. Security devices, for example locks and fixed barriers, should be installed.

5.10 INFORMATION, INSTRUCTION AND TRAINING:

Workers and their supervisors must have the skills and knowledge to understand the hazards associated with working in the confined space, the contents of any confined space entry permit, and the control measures implemented for their protection.

Training should be provided to workers who:

- Enter or work in confined spaces.
- Undertake hazard identification or risk assessment in relation to a confined space.
- Implement risk control measures.
- Issue entry permits.
- Act as a standby person or communicate with workers in a confined space.
- Monitor conditions while work is being carried out.
- Purchase equipment for confined space work.
- Design or lay out a work area that includes a confined space.

Regulation 76: The training provided to relevant workers must cover:

- The nature of all hazards associated with a confined space.
- The need for, and appropriate use of, risk control measures.
- The selection, use, fit, testing and storage of any personal protective equipment.
- The contents of any relevant confined space entry permit.
- Emergency procedures.

Re-training or refresher training should be provided as appropriate for a particular workplace. The frequency of this training should depend on how often workers are required to carry out tasks associated with entry to or work in confined spaces.

Records of all training provided to workers in relation to confined space work must be kept for 2 years.

5.11 MAINTENANCE OF CONTROL MEASURES:

Proper maintenance of control measures is an integral part of any safe system of work. Maintenance may involve visual checks, inspections, testing of equipment, preventative maintenance and remedial work. Equipment that should be regularly inspected includes:

- Atmospheric testing and sampling equipment.
- Personal protective equipment including respirators.
- Ventilation equipment.
- Safety harness and lines.
- Emergency rescue equipment.

6. EMERGENCY PROCEDURES:

Regulation 74: A person conducting a business or undertaking must establish first aid and rescue procedures to be followed in an emergency and ensure those procedures are practised as necessary to ensure that they are efficient and effective. First aid and rescue procedures must be initiated from outside the confined space as soon as practicable in an emergency.

The person conducting a business or undertaking must also ensure that openings for entry and exit are of a sufficient size to allow emergency access; openings are not obstructed; and any plant, equipment and personal protective equipment provided for first aid or emergency rescue are maintained in good working order.

When establishing emergency procedures, the following factors must be taken into account to manage risks associated with confined spaces:

- Whether the work can be carried out without the need to enter the confined space.
- The nature of the confined space.
- Any changes in hazards associated with the concentration of oxygen or the concentration of airborne contaminants in the confined space.
- The work to be carried out in the confined space, the range of methods by which the work can be carried out and the proposed method of working.
- The type of emergency and rescue procedures required.

Consideration should also be given to the following:

Relevant considerations	Questions
Location of the confined space	What is the geographic location of the space, how accessible is it in an emergency and how far away is it from appropriate medical facilities?
Communications	How can workers working inside the space communicate to people outside in an emergency? Exactly how will the alarm be raised and by whom? Planning needs to ensure that rescue and emergency personnel can access the workplace during night shift, weekends and holiday periods.
Rescue and resuscitation equipment	What kinds of emergencies are contemplated? The provision of suitable rescue and resuscitation equipment will depend on the potential emergencies identified. Selected rescue equipment should be kept in close proximity to the confined space so that it can be used immediately.
Capabilities of rescuers	Are rescuers properly trained, sufficiently fit to carry out their task and capable of using any equipment provided for rescue (e.g. breathing apparatus, lifelines and fire-fighting equipment)? How will rescuers be protected during the emergency operation?

Relevant considerations	Questions
First aid	Is appropriate first aid available for immediate use? Are trained first aid personnel available to make proper use of any necessary first aid equipment?
Local emergency services—if they are to be relied on for rescue	How will the local emergency services (e.g. fire brigade) be notified of an incident? What information about the particular dangers in the confined space will be given to them on their arrival? Have prior arrangements been made with local emergency services to ensure they are able to respond in a reasonable time and have the specialist confined space retrieval equipment readily available?

First aid and rescue procedures must be rehearsed with relevant workers to ensure that they are efficient and effective.

Rescue should be performed from outside the confined space, if possible. Workers performing rescue must be adequately trained. Rescuers must be provided with and wear appropriate respiratory protective equipment if they enter a confined space in an emergency.

If a person inside a confined space has been overcome by lack of oxygen or airborne contaminants, it should always be assumed that entry for rescue is unsafe unless air-supplied respiratory protective equipment is used.

Potential problems with the size of entrances and exits must be addressed when developing emergency and rescue procedures. Where openings are found to be inadequate, their size should be increased, or an alternative safe means of entry and exit should be provided.

7. HOW TO REVIEW CONTROL MEASURES:

Control measures that have been implemented must be reviewed, and if necessary, revised to make sure they work as planned and to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

Regulation 38: A person conducting a business or undertaking must review and as necessary revise risk control measures:

- When the control measure does not minimise the risk so far as is reasonably practicable.
- Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
- If a new hazard or risk is identified.
- If the results of consultation indicate that a review is necessary.
- If a health and safety representative requests a review.

Control measures may be reviewed using the same methods as the initial hazard identification step.

In undertaking the review, consult workers involved in the confined space work and their health and safety representatives and consider the following questions:

- Are the control measures working effectively in both their design and operation?
- How effective is the risk assessment process? Are all hazards being identified?

- Are workers actively involved in the risk management process? Are they openly raising health and safety concerns and reporting problems promptly?
- Have new work methods or new equipment made the job safer?
- Are safety procedures being followed?
- Has instruction and training provided to workers been successful?
- If new legislation or new information becomes available, does it indicate current controls may no longer be the most effective?
- Is any change planned to any plant or structure that may create a confined space or change the nature of an existing confined space?
- Has an incident occurred as a result of work carried out in a confined space?

If problems are found, go back to any point in the risk management process, review the information and revise any decisions about controls measures.

APPENDIX A – CONFINED SPACE CRITERIA:

	Confined space criteria						Confined space?
• Description of the space and activity	A	B	C	D			If the answer to A, B, C and at least one of D is yes, then the space is a confined space.
	Is the space enclosed or partially enclosed	Is the space not designed or intended to be occupied by a person	Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space	Does the space present a risk from:			
				Harmful airborne or flammable contaminants	An unsafe oxygen level	Engulfment	
Sewer with access via a vertical ladder	☐	☐	☐	☐	☐	☐	Yes
Dislodging grain from a silo with sole access through a manhole at the top	☐	☐	☐	☐	☐	☐	Yes
Cleaning spilled cadmium pigment powder in a shipping container	☐	☐	☐	☐	☐	☐	Yes
Inspecting a fuel tank in the wing of an aircraft	☐	☐	☐	☐	☐	☐	Yes
Dislodging a sludge blockage in a drain pit	☐	☐	☐	☐	☐	☐	Yes
Internal inspection of a new, clean tank prior to commissioning	☐	☐	☐	☐	☐	☐	No
Internal inspection of an empty cement silo through a door at ground level	☐	☐	☐	☐	☐	☐	No

Stocktake using an LPG forklift in a fruit cool store	☐	☐	☐	☐	☐	☐	No
Installing insulation in a roof cavity	☐	☐	☐	☐	☐	☐	No

APPENDIX B – SAMPLE CONFINED SPACE ENTRY PERMIT:

Confined space entry permit

General

Location of work _____

Description of work _____

_____

_____

Control measures

Isolation

Space needs to be isolated from: _____

Location/method

Water/gas/steam/chemicals _____

Mechanical/electrical drives _____

Auto fire extinguishing systems _____

Hydraulic/electric/gas/power _____

Sludge/deposits/wastes _____

Locks and/or tags have been affixed to isolation points Yes ❑ No ❑

Atmosphere:

The atmosphere in the confined space has been tested:

Result of tests:

Oxygen _____ %

Flammable gases _____ % LEL

% LEL

Other gases

_____ ppm (less than ppm)

_____ ppm (less than ppm)

Other airborne contaminants: _____

_____

_____

SAMPLE ONLY

The conditions for entry are as marked below:

1. With supplied air breathing apparatus Yes ❑ No ❑
2. Without respiratory protection Yes ❑ No ❑
3. With escape unit Yes ❑ No ❑

Hot work

Area clear of all combustibles including atmosphere	Yes ❑	No ❑
Type of appropriate fire prevention equipment available:		
Suitable access and exit	Yes ❑	No ❑
Hot work is permitted	Yes ❑	No ❑

Personal protective equipment

The following safety equipment must be worn:

	Type
Respiratory protection	
Harness/lifelines	
Eye protection	
Hand protection	
Footwear	
Protective clothing	
Hearing protectors	
Safety helmet	
Communication equipment	
Other	

Other precautions

Warning notices/barricades	Yes ❑	No ❑
All persons have been trained	Yes ❑	No ❑
Is continual air monitoring required	Yes ❑	No ❑

Emergency response

Procedures/Equipment

Standby person

Standby personnel requirements: _____

_____

_____

_____

_____

Authority to enter

The control measures and precautions appropriate for the safe entry and execution of the work in the confined space have been implemented and persons required to work in the confined space have been advised of and understand the requirements of this written authority.

Signed (*person in direct control*): _____

Date: _____ Time: _____

This written authority is valid until: _____

Date: _____ Time: _____

Persons authorised to enter confined space

I have been advised of and understand the control measures and precautions to be observed with the entry and work in the confined space.

Entry			**Exit**		
Name	**Date**	**Time**	**Name**	**Date**	**Time**

Withdrawal of written authority

All persons and equipment accounted for Yes ❑ No ❑

Equipment checked and stored correctly Yes ❑ No ❑

Signed (*person in direct control*): _____

Date: _____ Time: _____

Remarks or comments about the work: _____

LIST OF AMENDMENTS:

Date	Page Number	Amendments
19 February 2014	Front cover	Publication date changed from first published date of December 2011 to republished date of February 2014.
19 February 2014	10	Section 64 corrected to Regulation 64 in PDF version only.
3 February 2016	Front Cover	Publication date changed from February 2014 to February 2016.
3 February 2016	5	4th dot point – Text amended from 'such as liquids, grain, sand, fertiliser or water' to 'such as grain, sand, fertiliser, water or other liquids'.

Conflict Resolution

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FORWARD

This code of practice is based upon a free resource provided by PeaceWise. Further material and training resources from PeaceWise are available at: https://peacewise.org.au/

INTRODUCTION

The Bible provides us with simple yet powerful peacemaking principles for resolving conflict.

These principles are so simple that they can be used to resolve the most basic conflicts of daily life. But they are so powerful that they have been used to address church divisions, breakdowns in school and tertiary college working relationships, ministry team breakups, divorce and child custody actions, embezzlement situations, multi-million dollar business disputes and negligence lawsuits. These principles are briefly discussed below.

If your situation is one of abuse of power or authority, such as physical or sexual abuse, we suggest you read here. You may then wish to return to this page which deals with overarching principles for dealing with conflict more generally.

1. SEE CONFLICT AS AN OPPORTUNITY

Conflict is not necessarily bad or destructive. Even when conflict is caused by sin and causes a great deal of stress, God can use it for good (see Rom. 8:28-29). As the Apostle Paul wrote in 1 Corinthians 10:31-11:1, conflict actually provides three significant opportunities. By God's grace, you can use conflict to:

- Glorify God (by trusting, obeying, and imitating him)
- Serve other people (by helping to bear their burdens or by confronting them in love)
- Grow to be like Christ (by confessing sin and turning from attitudes that promote conflict).

These concepts are totally overlooked in most conflicts because people naturally focus on escaping from the situation or overcoming their opponent. Therefore, it is wise to periodically step back from a conflict and ask yourself whether you are doing all that you can to take advantage of these special opportunities.

2. GLORIFY GOD

When the Apostle Paul urged the Corinthians to live "to the glory of God," he was not talking about one hour on Sunday morning. He wanted them to show God honour and bring him praise in day-to-day life, especially by the way that they resolved personal conflicts (see 1 Cor. 10:31).

As mentioned above, you can glorify God in the midst of conflict by trusting him, obeying him, and imitating him (see Prov. 3:4-6; John 14:15; Eph. 5:1). One of the best ways to keep these concerns uppermost in your mind is to regularly ask yourself this focusing question: "How can I please and honour the Lord in this situation?"

3. GET THE LOG OUT OF YOUR OWN EYE

One of the most challenging principles of peacemaking is set forth in Matthew 7:5, where Jesus says, "You hypocrite, first take the plank out of your own eye, and then you will see clearly to remove the speck from your brother's eye."

There are generally two kinds of "logs" you need to look for when dealing with conflict. First, you need to ask whether you have had a critical, negative, or overly sensitive attitude that has led to unnecessary conflict. One of the best ways to do this is to spend some time meditating on Philippians 4:2-9, which describes the kind of attitude Christians should have even when they are involved in a conflict. The second kind of log you must deal with is actual sinful words and actions. Because you are often blind to your own sins, you may need an honest friend or advisor who will help you to take an objective look at yourself and face up to your contribution to a conflict.

When you identify ways that you have wronged another person, it is important to admit your wrongs honestly and thoroughly. One way to do this is to use the "Seven A's of Apology and Confession:"

- Address everyone involved (Prov. 28:13; 1 John 1:8-9).
- Avoid if, but, and maybe (don't make excuses; Luke 15:11-24).
- Admit specifically (both attitudes and actions).
- Apologize (express sorrow for the way you affected someone).
- Accept the consequences (Luke 19:1-9).
- Alter your behaviour (commit to changing harmful habits; Eph. 4:22-32).
- Ask for forgiveness.

The most important aspect of getting the log out of your own eye is to go beyond the confession of wrong behaviour and face up to the root cause of that behaviour. The Bible teaches that conflict comes from the desires that battle in your heart (James 4:1-3; Matt. 15:18-19). Some of these desires are obviously sinful, such as wanting to conceal the truth, bend others to your will, or have revenge. In many situations, however, conflict is fuelled by good desires that you have elevated to sinful demands, such as a craving to be understood, loved, respected, or vindicated.

Any time you become excessively preoccupied with something, even a good thing, and seek to find happiness, security or fulfillment in it rather than in God, you are guilty of idolatry. Idolatry inevitably leads to conflict with God ("You shall have no other gods before me"). It also causes conflict with other people. As James writes, when we want something but don't get it, we kill and covet, quarrel and fight (James 4:1-4).

There are three basic steps you can take to overcome the idolatry that fuels conflict.

- First, you should ask God to help you see where you have been guilty of wrong worship, that is, where you are focusing your love, attention, and energy on something other than God.
- Second, you should specifically identify and renounce each of the desires contributing to the conflict.
- Third, you should deliberately pursue right worship, that is, to fix your heart and mind on God and to seek joy, fulfilment, and satisfaction in him alone.

As God guides and empowers these efforts, you can find freedom from the idols that fuel conflict and be motivated to make choices that will please and honour Christ. This change in heart will usually speed a resolution to a present problem, and at the same time improve your ability to avoid similar conflicts in the future.

4. GENTLY RESTORE

Another key principle of peacemaking involves an effort to help others understand how they have contributed to a conflict. Before you decide to confront someone, however, remember that it is appropriate to overlook minor offences (see Prov. 19:11). As a general rule, an offence should be overlooked if you can answer "no" to all of the following questions:

- Is the offence seriously dishonouring God?
- Has it permanently damaged a relationship?
- Is it seriously hurting other people?
- Is it seriously hurting the offender himself or herself?

If you answer "**yes"** to any of these questions, an offence is too serious to overlook, in which case God commands you to go and talk with the offender privately and lovingly about the situation (see Matt. 18:15). As you do so, remember to:

- Pray for humility and wisdom.
- Plan your words carefully (think of how you would want to be confronted).
- Anticipate likely reactions and plan appropriate responses (rehearsals can be very helpful).
- Choose the right time and place (talk in person whenever possible).
- Assume the best about the other person until you have facts to prove otherwise (Prov. 11:27).
- Listen carefully (Prov. 18:13).
- Speak only to build others up (Eph. 4:29).
- Ask for feedback from the other person.
- Recognise your limits (only God can change people; see Rom. 12:18; 2 Tim. 2:24-26).

If an initial confrontation does not resolve a conflict, do not give up. Review what was said and done, and look for ways to make a better approach during a follow up conversation. It may also be wise to ask a spiritually mature friend for advice on how to approach the other person more effectively. Then try again with even stronger prayer support.

If repeated, careful attempts at a private discussion are not fruitful, and if the matter is still too serious to overlook, you should ask one or two other people to meet with you and your opponent and help you to resolve your differences through mediation, arbitration, or church discipline (see Matt. 18:16-20; 1 Cor. 6:1-8;).

5. GO AND BE RECONCILED

One of the most unique features of biblical peacemaking is the pursuit of genuine forgiveness and reconciliation.

Even though Christians have experienced the greatest forgiveness in the world, we often fail to show that forgiveness to others. To cover up our disobedience we often use the shallow statement, "I forgive her—I just don't want to have anything to do with her again." Just think, however, how you would feel if God said to you, "I forgive you; I just don't want to have anything to do with you again"? Praise God that he never says this! Instead, he forgives you totally and opens the way for genuine reconciliation. He calls you to forgive others in exactly the same way: "Bear with each other and forgive whatever grievances you may have against one another. Forgive as the Lord forgave you" (Col. 3:12-14; see also 1 Cor. 13:5; Psalm 103:12; Isa. 43:25).

One way to imitate God's forgiveness is to make four specific promises when you forgive someone:

- I will not think about this incident.
- I will not bring this incident up and use it against you.
- I will not talk to others about this incident.
- I will not allow this incident to stand between us or hinder our personal relationship.

Note: that if the conduct in question is something which keeps being repeated even after forgiveness has been extended , then it may become necessary to raise the matter again, not to 'use it against' the person but because the behaviour is still an ongoing issue which is hurting the relationship and therefore still needs to be addressed.

Remember that forgiveness is a spiritual process that you cannot fully accomplish on your own. Therefore, as you seek to forgive others, continually ask God for grace to enable you to imitate his wonderful forgiveness toward you.

6. NEGOTIATE IN A BIBLICAL MANNER

Even when you manage to resolve personal offences through confession and forgiveness, you may still need to deal with substantive issues, which may involve money, property, or the exercise of certain rights. These issues should not be swept under the carpet or automatically passed to a higher authority. Instead, they should be negotiated in a biblically faithful manner.

As a general rule, you should try to negotiate substantive issues in a co-operative manner rather than a competitive manner. In other words, instead of aggressively pursuing your own interests and letting others look out for themselves, you should deliberately look for solutions that are beneficial to everyone involved.

As the Apostle Paul put it, "Do nothing out of selfish ambition or vain conceit, but in humility consider others better than yourselves. Each of you should look not only to your own interests, but also to the interests of others" (Phil. 2:3-4; see Matt. 22:39; 1 Cor. 13:5; Matt. 7:12).

- A biblical approach to negotiation may be summarised in five basic steps, which we refer to as the PAUSE Principle:
- Prepare (pray, get the facts, seek godly counsel, develop options)
- Affirm relationships (show genuine concern and respect for others)
- Understand interests (identify others' concerns, desires, needs, limitations, or fears)
- Search for creative solutions (prayerful brainstorming)
- Evaluate options objectively and reasonably (evaluate, don't argue)

If you have never used this approach to negotiation before, it will take time and practice (and sometimes advice from others) to become proficient at it. But it is well worth the effort, because learning the PAUSE principle will help you not only to resolve your present dispute but also to negotiate more effectively in all areas of your life.

7. BE PREPARED FOR UNREASONABLE PEOPLE

Whenever you are responding to conflict, you need to realize that other people may harden their hearts and refuse to be reconciled to you.

There are two ways you can prepare for this possibility.

- **First**, remember that God does not measure success in terms of results but in terms of faithful obedience. He knows that you cannot force other people to act in a certain way. Therefore he will not hold you responsible for their actions or for the ultimate outcome of a conflict. All God expects of you is to obey his revealed will as faithfully as possible (see Rom. 12:18). If you do that, no matter how the conflict turns out, you can walk away with a clear conscience before God, knowing that his appraisal is, "Well done, good and faithful servant."
- **Second**, resolve that you will not give up on finding a biblical solution. If a dispute is not easily resolved, you may be tempted to say, "Well, I tried all the biblical principles I know, and they just didn't work. It looks like I'll have to handle this another way (meaning, 'the world's way')."

A Christian should never close the Bible. When you try to resolve a conflict but do not see the results you desire, you should seek God even more earnestly through prayer, the study of his Word, and the counsel of his church. As you do so, it is essential to keep your focus on Christ and all that he has already done for you (see Col. 3:1-4). It is also helpful to follow five principles for overcoming evil, which are described in Romans 12:14-21:

- Control your tongue ("Bless those who curse you;" see also Eph. 4:29)
- Seek godly advisors (identify with others and do not become isolated)
- Keep doing what is right (see 1 Pet. 2;12, 15; 3:15b-16)
- Recognize your limits (instead of retaliating, stay within proper biblical channels)
- Use the ultimate weapon: deliberate, focused love (see also John 3:16; Luke 6:27-31)

At the very least, these steps will protect you from being consumed by the acid of your own bitterness and resentment if others continue to oppose you. And in some cases, God may eventually use such actions to bring another person to repentance (see 1 Sam. 24:1-22).

Even if other people persist in doing wrong, you can continue to trust that God is in control and will deal with them in his time (see Psalms 10 and 37). This kind of patience in the face of suffering is commended by God (see 1 Pet. 2:19) and ultimately results in our good and his glory.

8. GET HELP FROM ABOVE

None of us can make complete and lasting peace with others in our own strength. We must have help from God. But before we can receive that help, we need to be at peace with God himself.

Peace with God does not come automatically, because all of us have sinned and alienated ourselves from him (see Isa. 59:1–2). Instead of living the perfect lives needed to enjoy fellowship with him, each of us has a record stained with sin (see Matt. 5:48; Rom. 3:23). As a result, we deserve to be eternally separated from God (Rom. 6:23a). That is the bad news.

The good news is that "God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life" (John 3:16). Believing in Jesus means more than being baptised, going to church, or trying to be a good person. None of these activities can erase the sins you have already committed and will continue to commit throughout your life.

Believing in Jesus means, first of all, admitting that you are a sinner and acknowledging that there is no way you can earn God's approval by your own works (Rom. 3:20; Eph. 2:8–9).

Second, it means believing that Jesus paid the full penalty for your sins when he died on the cross (Isa. 53:1–12; 1 Peter 2:24–25). In other words, believing in Jesus means trusting that he exchanged records with you at Calvary—that is, he took your sinful record on himself and paid for it in full, giving you his perfect record.

When you believe in Jesus and receive his perfect record of righteousness, you can really have true peace with God. As you receive this peace, God will give you an increasing ability to make peace with others by following the peacemaking principles he gives us in Scripture, many of which are described above (see Phil. 4:7; Matt. 5:9).

If you have never confessed your sin to God and believed in Jesus Christ as your Saviour, Lord, and King, you can do so right now by sincerely praying this prayer:

Lord Jesus,

I know that I am a sinner, and I realize that my good deeds could never make up for my wrongs. I need your forgiveness. I believe that you died for my sins, and I want to turn away from them. I trust you now to be my Saviour, and I will follow you as my Lord and King, in the fellowship of your church.

If you have prayed this prayer, it is essential that you find fellowship with other Christians in a church where the Bible is faithfully taught and applied. This fellowship will help you to learn more about God, grow in your faith, and obey what he commands, even when you are involved in a difficult conflict.

9. GET HELP FROM THE CHURCH

As God helps you to practice his peacemaking principles, you will be able to resolve most of the normal conflicts of daily life on your own. Sometimes, however, you will encounter situations that you do not know how to handle. In such situations, it is appropriate to turn to a spiritually mature person within the church who can give you advice on how you might be able to apply these principles more effectively.

In most cases, such "coaching" will enable you to go back to the other person in the conflict and work out your differences in private. If the person from whom you seek advice does not have much experience in conflict resolution, it may be helpful to give him or her a copy of Guiding people through conflict, which provides practical, nuts-and-bolts guidance on how to help other people resolve conflict.

When individual advice does not enable you to resolve a dispute, you should ask one or two mutually respected friends to meet with you and your opponent to help you settle your difference through mediation or arbitration (see Matt. 18:16-17; 1 Cor. 6:1-8). For more information on how to get guidance and assistance in resolving a dispute, contact us.

#Demolition

DEMOLITION WORK

Code of Practice - FEBRUARY 2016

- This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.
- A copy of this code is included for download in CCCVaT's website along with other codes referred to in this Workplace Health and Safety Manual which have not be published in this document.
- The reason this Code of Practice was not published in this document was due to its worth to Churches. That is not to imply that it is not relevant and should the Church intend to demolish any structure, then this code of practice should be referred to before embarking upon this exercise.

#Design

SAFE DESIGN OF STRUCTURES

Code of Practice - JULY 2012

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MANAGING ELECTRICAL RISKS IN THE WORKPLACE

Code of Practice - FEBRUARY 2016

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FORWARD:

This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.

SCOPE AND APPLICATION:

This Code provides practical guidance for persons conducting a business or undertaking on managing electrical risks in the workplace. It applies to all workplaces where a person conducting a business or undertaking:

- Has management or control of electrical equipment, including electrical installations.
- Carries out electrical work on or near energised electrical equipment, including electrical installations.

This Code also applies to construction and demolition sites, except if a requirement of the Code is dealt with in AS/NZS 3012:2010 Electrical installations—Construction and demolition sites. In that case you must comply with AS/NZS 3012:2010.

Further information about construction work can be found in the Code of Practice: Construction Work.

This Code does not apply to:

- Electrical work on extra-low voltage electrical equipment, including extra-low voltage electrical installations.
- Electrical work on high voltage equipment after switching, isolation, short circuiting and earthing, subject to summary guidance in Chapter 10 of this Code.
- The manufacture of electrical equipment.
- Automotive electrical work.
- Work that is not electrical work carried out on telephone, communication and data systems.
- Work carried out by or on behalf of an electricity supply authority on the electrical equipment controlled or operated by the authority to generate, transform, transmit or supply electricity.
- Repair of consumer electrical equipment when unplugged from any electrical socket outlet.

'Extra-low voltage' means voltage that does not exceed 50 volts alternating current (50 V A.C.) or 120 volts ripple-free direct current (120 V ripple free D.C.).

This Code is divided into two parts dealing with:

- Part A (Chapters 2-3): general electrical safety at the workplace, including electrical installations, requirements for inspecting and testing electrical equipment, and requirements for residual current devices in certain high-risk environments
- Part B (Chapters 4-9): health and safety risks associated with electrical work.

How to use this Code of Practice:

In providing guidance, the word ‘should’ is used in this Code to indicate a recommended course of action, while ‘may’ is used to indicate an optional course of action.

This Code also includes various references to provisions of the WHS Act and Regulations which set out the legal requirements. These references are not exhaustive. The words ‘must’, ‘requires’ or ‘mandatory’ indicate that a legal requirement exists and must be complied with.

8. INTRODUCTION

8.1 WHAT ARE ELECTRICAL RISKS?

Electrical risks are risks of death, electric shock or other injury caused directly or indirectly by electricity. The most Common electrical risks and causes of injury are:

- Electric shock causing injury or death. The electric shock may be received by direct or indirect contact, tracking through or across a medium, or by arcing. For example, electric shock may result from indirect contact where a conductive part that is not normally energised becomes energised due to a fault (e.g. metal toaster body, fence)
- Arcing, explosion or fire causing burns. The injuries are often suffered because arcing or explosion or both occur when high fault currents are present.
- Electric shock from ‘step-and-touch’ potentials.
- Toxic gases causing illness or death. Burning and arcing associated with electrical equipment may release various gases and contaminants.
- Fire resulting from an electrical fault.

Even the briefest contact with electricity at 50 volts for alternating current (V A.C.) or 120 volts for direct current (V D.C.) can have serious consequences to a person’s health and safety. High voltage shocks involving more than 1000 V A.C. or 1500 V D.C. can cause contact burns and damage to internal organs.

Electric shocks from faulty electrical equipment may also lead to related injuries, including falls from ladders, scaffolds or other elevated work platforms. Other injuries or illnesses may include muscle spasms, palpitations, nausea, vomiting, collapse and unconsciousness.

Workers using electricity may not be the only ones at risk—faulty electrical equipment and poor electrical installations can lead to fires that may also cause death or injury to others.

Key terms used in this Code are defined at Appendix A.

8.2 WHO MUST MANAGE ELECTRICAL RISKS?

A PCBU has the primary duty under the WHS Act to ensure, so far as is reasonably practicable, that workers and other persons at the workplace are not exposed to electrical risks arising from the business or undertaking. This duty requires eliminating electrical risks or, if that is not reasonably practicable, minimising the risks so far as is reasonably practicable.

The WHS Regulations include more specific requirements for managing electrical risks at the workplace. For example, all persons conducting a business or undertaking have duties to ensure, so far as is reasonably practicable, that electrical equipment and installations at the workplace are without risks to health and safety of persons.

Persons conducting a business or undertaking with management or control of a workplace have a duty to ensure effective residual current devices (RCDs) are used in certain high-risk environments as defined in the regulations.

Persons conducting a business or undertaking carrying out electrical work must comply with the prohibition on electrical work on energised electrical equipment subject to certain exceptions. These persons may also have duties under local electrical safety laws.

A PCBU should ensure electrical installation work is carried out by qualified persons and testing and compliance

requirements are met.

Designers, manufacturers, importers, suppliers, and installers of electrical equipment and installations that could be used for work must ensure, so far as is reasonably practicable, that they are without risks to health and safety. Designers and manufacturers of electrical equipment or installations must ensure they are designed and manufactured so that electrical risks are eliminated or, if this not reasonably practicable, minimised so far as is reasonably practicable.

Officers, such as board member or leaders of the church, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise electrical risks at the workplace.

Workers must take reasonable care for their own health and safety and not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace. This means that if electrical equipment is provided by the person conducting the business or undertaking, the worker must use it in accordance with the information, instruction and training provided on its use.

Duty holders may have additional legal obligations under state or territory electrical safety legislation.

8.3 WHAT IS REQUIRED TO MANAGE ELECTRICAL RISKS?

Regulation 147: A person conducting a business or undertaking must manage risks to health and safety associated with electrical risks at the workplace.

Regulation 34-38: In order to manage risk under the WHS Regulations, a duty holder must:

- Identify reasonably foreseeable hazards that could give rise to the risk.
- Eliminate the risk, so far as is reasonably practicable.
- If it is not reasonably practicable to eliminate the risk, minimise the risk so far as is reasonably practicable by implementing control measures.
- Maintain the implemented control measure so that it remains effective.
- Review, and if necessary revise, all risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

The hierarchy of risk control is described at Section 9.3 of this Code.

This Code includes guidance on how to manage electrical risks in the workplace by following a systematic process that involves:

- Identifying hazards.
- If necessary, assessing the risks associated with these hazards.
- Implementing and maintaining risk control measures (e.g. inspecting and testing electrical equipment, using RCDs).
- Reviewing risk control measures.

Guidance on the general risk management process is available in the:
Code of Practice: *How to manage work health and safety risks*.

Consulting your workers:

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Section 47: A PCBU must consult, so far as is reasonably practicable, with workers who carry out work for the business or undertaking and who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation with workers and their health and safety representatives is required at every step of the risk Management process. By drawing on the experience, knowledge and ideas of your workers you are more likely to identify all Hazards and choose effective risk controls.

Consulting, cooperating and coordinating activities with other duty holders:

Section 46: A person conducting a business or undertaking must, so far as is reasonably practicable, consult, cooperate and coordinate activities with all other persons who have a work health or safety duty in relation to the same matter.

Sometimes you may have responsibility for a health and safety matter along with other business operators who are involved in the same activities or who share the same workplace. In these situations, you should exchange information to find out who is doing what and work together in a cooperative and coordinated way so that all risks are eliminated or minimised so far as is reasonably practicable.

For example, if you engage an electrical contractor to carry out electrical work at your workplace you should consult with the contractor on how (in general) the work is to be carried out and in particular how risks to their health and safety and that of others at the workplace are to be managed while the work is carried out. You should also cooperate with the electrical contractor (e.g. instructing on and ensuring compliance with 'no go' zones') to ensure electrical safety of everyone at the workplace.

Further guidance on consultation is available in the:

Code of Practice: *Work health and safety consultation, cooperation and coordination.*

Information, training, instruction and supervision:

Section 19: A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out.

Regulation 39 You must ensure that information, training and instruction provided to a worker is 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.

You must ensure, so far as is reasonably practicable, that the information, training and instruction is provided in a way that is readily understandable by any person to whom it is provided.

Formal or on-the-job training may be appropriate depending on the circumstances. Examples of training are:

- Induction training—to ensure new starters or workers new to a job are trained on safe systems of work and other relevant health and safety matters.
- Supervisor and management training—to ensure that safety issues are appropriately managed at the workplace.
- Work-specific training—to ensure that workers carrying out particular work are trained on any electrical and other risks specific to the work, as appropriate.

- Ongoing or refresher training—to ensure that any training on work health and safety matters is repeated as appropriate on a periodic basis.
- Emergency procedure training—to ensure workers know what to do in the event of an emergency, for example procedures to follow if a person receives an electric shock.
- First aid training—to ensure appropriate procedures are followed for administering first aid, for example proper treatment for electric shock.
- Electrical rescue and resuscitation training for safety observers.

Special needs of workers should be taken into account in deciding the structure, content and delivery of training, including literacy levels, work experience and specific skills required to carry out the work.

PART A:

GENERAL ELECTRICAL SAFETY AT THE WORKPLA*CE*

9. THE RISK MANAGEMENT PROCESS

9.1 IDENTIFY THE HAZARDS:

Identifying hazards involves finding all of the tasks, situations and sequences of events that could potentially cause harm.

Hazards arising from electrical equipment or installations may arise from:

- The design, construction, installation, maintenance and testing of electrical equipment or electrical installations
- Design change or modification.
- Inadequate or inactive electrical protection.
- Where and how electrical equipment is used. Electrical equipment may be subject to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span. For example, equipment may be at greater risk of damage if used outdoors or in a factory or workshop environment.
- Electrical equipment being used in an area in which the atmosphere presents a risk to health and safety from fire or explosion, for example confined spaces.
- Type of electrical equipment. For example, ‘plug in’ electrical equipment that may be moved around from site to site, including extension leads, are particularly liable to damage.
- The age of electrical equipment and electrical installations.
- Work carried out on or near electrical equipment or electrical installations, including electric overhead lines or underground electric services, for example work carried out in a confined space connected to plant or services.

Exposure to high electromagnetic fields may also present a potential hazard for workers with some medical conditions, for example pace makers. You must inform workers and other persons at the workplace of any potential electromagnetic hazards at the workplace that may affect a medical condition. You must also manage risks to health and safety arising out of electromagnetic hazards, including eliminating the risk so far as is reasonably practicable. If that is not reasonably practicable you must minimise the risk so far as is reasonably practicable.

Potential electrical hazards may be identified in a number of different ways including:

- Talking to workers and observing where and how electrical equipment is used.
- Regularly inspecting and testing electrical equipment and electrical installations as appropriate.
- Reading product labels and manufacturers’ instruction manuals.

- Talking to manufacturers, suppliers, industry associations, and health and safety specialists.
- Reviewing incident reports.

9.2 ASSESS THE RISKS:

Risk assessment involves considering what could happen if someone is exposed to a hazard (consequence) and the likelihood of it happening.

For work on energised electrical equipment, the WHS Regulations require that a risk assessment be prepared in writing by a competent person; for more information see Part B of this Code.

A risk assessment can help determine:

- The severity of an electrical risk.
- Whether existing control measures are effective.
- What action you should take to control an electrical risk.
- How urgently the action needs to be taken.

To assess the risk associated with electrical hazards consider:

- What is the potential impact of the hazard?
    - How severe could the electrical hazard be? For example, direct contact causing electrocution, fire or explosion causing serious burns or death.
    - How many people are exposed to the hazard?
- **How likely is the hazard to cause harm?**
    - Could it happen at any time or would it be a rare event?
    - How frequently are workers exposed to the hazard?

Other factors that may affect consequence and likelihood include:

- The conditions under which the electrical equipment is used, for example wet conditions outdoors or confined spaces.
- Work practices and procedures, for example isolation, to carry out maintenance
- The capability, skill and experience of relevant workers.

9.3 CONTROL THE RISKS:

Once hazards have been identified and the risks assessed, appropriate control measures must be put in place.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk control. You must work through this hierarchy to choose the control that most effectively eliminates or minimises the risk in the circumstances, so far as is reasonably practicable. This may involve a single control measure or a combination of two or more different controls.

Elimination:

The most effective control measure is to remove the hazard or hazardous work practice. By designing-in or designing-out certain features, hazards may be eliminated.

Substitution:

Replacing a hazardous process or material with one that is less hazardous will reduce the hazard, and hence the risk. For example, it may be reasonably practicable to use extra-low voltage electrical equipment such as a battery-operated

tool rather than a tool that is plugged into mains electricity.

Isolation:

Preventing workers from coming into contact with the source of an electrical hazard will reduce the relevant risks.

Engineering controls:

Use engineering control measures to minimise the risk, for example installing residual current devices to reduce the risk of receiving a fatal electric shock.

Administrative controls:

Administrative controls involve the use of safe work practices to control the risk, for example establishing exclusion zones, use of permits and warning signs.

Personal protective equipment (PPE):

PPE includes protective eyewear, insulated gloves, hard hats, aprons and breathing protection. Most forms of PPE are not relevant to minimising electrical risks in workplaces, except in relation to energised electrical work.

Administrative controls and PPE do nothing to change the hazard itself. They rely on people behaving as expected and require a high level of supervision. Exclusive reliance on administrative controls and PPE must only occur where other measures are not reasonably practicable or as an interim control while the preferred control measure is being implemented.

You should check that your chosen control measure does not introduce new hazards.

9.4 REVIEW THE CONTROL MEASURES:

The controls that are put in place to protect health and safety must be reviewed regularly to make sure they work effectively.

Regulation 38 A person conducting a business or undertaking must review and as necessary revise a control measure in the following circumstances:

- When the control measure does not control the risk it was implemented to control so far as is reasonably practicable.
- Before a change at the workplace that is likely to give rise to a new or different risk to health or safety that the measure may not effectively control.
- If a new relevant hazard or risk is identified.
- If the results of consultation indicate that a review is necessary
- If a health and safety representative requests a review.

The following questions will help you evaluate how well you are currently managing electrical risks in your workplace:

- Do you talk to your workers about electrical safety? Do any relevant new work methods or equipment have the potential to make work safer in your workplace?
- Are procedures for identifying electrical hazards in the workplace effective?
- Are electrical safety procedures followed? Do you encourage your workers to report electrical hazards?
- Do you regularly inspect and maintain your electrical equipment to identify safety problems?
- Do you fix or rectify identified electrical hazards in a timely manner?

10. SPECIFIC HAZARDS AND RISK CONTROL

There are a number of things you should do to manage the risks to health and safety associated with electrical risks at the workplace including:

- Ensure power circuits are protected by the appropriate rated fuse or circuit breaker to prevent overloading.
- If the circuit keeps overloading, don't increase the fuse rating as this creates a fire risk due to overheating; instead ensure the circuit is not re-energised until the reason for the operation has been determined by a competent person.
- Arrange electrical leads so they will not be damaged. So far as is reasonably practicable, avoid running leads across the floor or ground, through doorways and over sharp edges, and use lead stands or insulated cable hangers to keep leads off the ground. In many heavy industries, cable protection ramps are used to protect cables.
- Don't use leads and tools in damp or wet conditions unless they are specially designed for those conditions.
- Ensure circuits where portable electrical equipment can be connected are protected by appropriate RCDs (as required by the WHS Regulations) that are properly tested and maintained.
- If RCDs, circuit breakers or other over current protective devices including fuses are triggered into operation, ensure circuits are not re-energised until the reason for the operation has been determined by a competent person.
- Ensure RCDs are effective by regular testing.

10.1 UNSAFE ELECTRICAL EQUIPMENT AND ELECTRICAL INSTALLATIONS AT THE WORKPLACE:

Regulation 149: A person conducting a business or undertaking that has management or control of electrical equipment must ensure that any unsafe electrical equipment at the workplace is disconnected (or isolated) from its electricity supply and, once disconnected, is not reconnected until it is repaired or tested and found to be safe or is replaced or permanently removed from use.

Electrical equipment is unsafe if there are reasonable grounds for believing it to be unsafe.

You should implement a safe system of work to deal with potentially unsafe electrical equipment at the workplace. This could include:

- Requiring workers (if competent to do so) to undertake a check of the physical condition of the electrical equipment, including the lead and plug connections, prior to commencing use.
- Taking the electrical equipment out of service if in doubt as to safety, including at any time during use.
- Putting reporting arrangements in place to ensure, so far as is reasonably practicable, that supervisors or line managers are advised if a worker takes electrical equipment out of service for safety reasons.

Unsafe electrical equipment must be disconnected or isolated from its electricity supply. It must not be reconnected unless it is repaired by a competent person or tests by a competent person have confirmed it is safe to use. Alternatively, it could be replaced or permanently removed from use.

Unsafe electrical equipment should be labelled indicating it is unsafe and must not be used. This is to prevent inadvertent use before the electrical equipment can be tested, repaired or replaced.

10.2 INSPECTING AND TESTING ELECTRICAL EQUIPMENT:

Inspecting and testing electrical equipment will assist in determining whether it is electrically safe.

Regular visual inspection can identify obvious damage, wear or other conditions that might make electrical equipment unsafe. Many electrical defects are detectable by visual inspection.

Regular testing can detect electrical faults and deterioration that cannot be detected by visual inspection.

The nature and frequency of inspection and testing will vary depending on the nature of the workplace and the risks associated with the electrical equipment.

Lower-risk workplaces include those workplaces that are dry, clean, well-organised and free of conditions that are likely to result in damage to electrical equipment, for example an office, retail shop, telecommunications centre, classroom, etc. Electrical equipment commonly used in these types of lower-risk workplaces includes computers, photocopiers, stationery or fixed electrical equipment. A key source of information on dealing with the inspection and testing of electrical equipment is the manufacturer's recommendations.

In this section a reference to 'inspection' or 'testing' excludes repair of electrical equipment.

Inspecting and testing electrical equipment—other than equipment used in specified higher-risk operating environments:

Not all electrical items need to be inspected and tested under Regulation 150—for legal requirements see Sections 10.3 and 0 of this Code, which deal with inspection and testing requirements for electrical equipment used in specified higher-risk operating environments. Electrical equipment used in lower-risk operating environments does not require inspection and testing or 'tagging'.

Guidance on inspecting and testing electrical equipment in lower-risk operating environments is included in AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment (if covered by that Standard) and may also be included in the manufacturer's recommendations.

AS/NZS 3760:2010 sets out indicative inspection and testing intervals for certain electrical equipment, including RCDs, used in a variety of different operating environments.

In addition to regular testing, electrical equipment should also be tested:

- After a repair or servicing that could affect the electrical safety of the equipment (i.e. undertaken by the person carrying out the repair or servicing before return to service).
- Before its first use if bought second-hand.

Inspection and testing of electrical equipment may involve, in part:

- Looking for obvious damage, defects or modifications to the electrical equipment, including accessories, connectors, plugs or cord extension sockets.
- Looking for discolouration that may indicate exposure to excessive heat, chemicals or moisture.
- Checking the integrity of protective earth and insulation resistance.
- Checking that flexible cords are effectively anchored to equipment, plugs, connectors and cord extension sockets.
- Looking for damage to flexible cords.
- Checking that operating controls are in good working order i.e. they are secure, aligned and appropriately identified.
- Checking that covers, guards, etc. are secured and working in the manner intended by the manufacturer or supplier.
- Checking that ventilation inlets and exhausts are unobstructed.
- Checking that the current rating of the plug matches the current rating of the associated electrical equipment.

Note: That AS/NZS 3760:2010 specifically excludes medical devices and electrical devices in patient care areas. For more information see AS/3551:2004 Technical management programs for medical devices or AS/NZS 3003:2011 Electrical Installations – patient areas.

New equipment:

Brand-new electrical equipment that has never been put into use (i.e. other than second-hand equipment) does not have to be tested before first use.

Brand-new electrical equipment, however, should still be visually inspected to ensure that no damage occurred during transport, delivery, installation or commissioning.

If the electrical equipment is required to be tested regularly for safety, take the necessary steps to ensure that it does not miss its first required test.

The date the electrical equipment was placed into service should be recorded (e.g. on the record of installation or elsewhere). The electrical equipment may also be fitted with a tag stating:

- That the equipment is 'new to service'.
- The date of entry into service.
- The date when the first electrical safety test is due.
- That the equipment has not been tested.

Fitting a 'new to service' tag is an administrative task that can be carried out by an appropriately trained in-house person.

Alternatively, a different system may be put into place to ensure the electrical equipment is properly inspected and tested as required (e.g. the new electrical equipment can be included in the next round of electrical testing carried out at the workplace).

Inspecting and testing equipment—regulatory requirements for specified higher-risk operating environments other than construction or demolition sites:

Regulation 150: A person conducting a business or undertaking with management or control of electrical equipment must ensure that the electrical equipment is regularly inspected and tested by a competent person if the electrical equipment is:

- Supplied with electricity through an electrical socket outlet ('plug in' equipment).
- Used in an environment in which its normal use exposes the equipment to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span.

This includes conditions that involve exposing the electrical equipment to moisture, heat, vibration, mechanical damage, corrosive chemicals or dust.

You must ensure, so far as is reasonably practicable, that electrical equipment is not used if the equipment is required to be tested under these requirements but has not been tested. Possible actions may include the storing of equipment in locked areas to prevent use or the use of 'lock out' labels and tags.

Inspection and testing requirements apply in relation to:

- Certain higher-risk workplaces in which electrical equipment is exposed to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span.
- Construction and demolition sites (see Section 10.3 of this Code).

These operating environments have the potential to seriously affect the safe operation of electrical equipment. This includes conditions that involve exposing the electrical equipment to moisture, heat, vibration, mechanical damage, corrosive chemicals and dust. Examples include wet or dusty areas, outdoors, workplaces that use corrosive substances, commercial kitchens and manufacturing environments.

A risk assessment can help determine whether electrical equipment is being used in any of these operating environments at a particular workplace.

For guidance on appropriate inspection and testing intervals, seek the advice of a competent person (see below). Further guidance may be included in AS/NZS 3760:2010 In-service safety inspection and testing of electrical equipment and the manufacturer's recommendations.

As a general rule electrical equipment used in the specified higher-risk operating environments should be tested at least once every 12 months. More frequent testing may be required, for example in relation to:

- Electrical equipment used in manufacturing and workshop environments (e.g. at least once every 6 months).
- Commercial cleaning equipment (e.g. at least once every 6 months).
- Hire equipment (e.g. at least once every 3 months).

Hire equipment:

Persons conducting a business or undertaking hiring out electrical equipment must ensure the equipment is inspected at the commencement of each hire and tested every three months.

The person conducting a business or undertaking using the electrical equipment hired out must ensure that, for the period of the hire, the equipment meets all applicable inspection and testing requirements under the WHS Regulations and this Code.

Competency requirements for those carrying out inspection and testing of electrical equipment:

Inspection and testing of electrical equipment must be carried out by a person who has acquired, through training, qualification or experience, the knowledge and skills to carry out the task (i.e. be a 'competent person'). Inspection and testing of electrical equipment must be carried out by a competent person who has the relevant knowledge, skills and test instruments to carry out the relevant inspection and testing. The person carrying out any testing of electrical equipment should also be competent to interpret the test results of any equipment they use. For example, a person carrying out testing under AS/NZS 3760:2010 must be:

- A licensed or registered electrician (whichever applies).
- In some jurisdictions, a licensed electrical inspector.
- A person who has successfully completed a structured training course and been deemed competent in the use of a pass-fail type portable appliance tester and the visual inspection of electrical equipment.

The training should be designed to ensure, so far as is reasonably practicable, that on completion successful participants:

- Can use the relevant test equipment safely and effectively.
- Understand electrical risks and appreciate the role that inspection and testing plays in ensuring electrical safety.
- Understand AS/NZS 3760:2010 and AS/NZS 3012:2010 (if testing equipment for construction or demolition sites)
- Understand the legal requirements relevant to the work.

Some kinds of electrical testing must only be carried out by a licensed electrician or electrical inspector under local electrical safety laws. For example, testing requiring the dismantling of electrical equipment should only be carried out by a licensed electrician.

Additional or different competencies may be required for more complex kinds of testing outside the scope of AS/NZS 3760:2010.

If in doubt, advice should be obtained from a person qualified and experienced in electrical equipment testing, for example an electrician, electrical contractor, electrical inspector, specialist testing provider or relevant regulator.

Recording results of testing:

Regulation 150: A record of testing must be kept until the electrical equipment is next tested, permanently removed from the workplace or disposed of. A record of testing must specify the following:

- The name of the person who carried out the testing.
- The date of the testing.
- The outcome of the testing.
- The date on which the next testing must be carried out.

The record may be in the form of a tag attached to the electrical equipment tested.

Log book or other similar form of record:

The record of testing may take the form of a log book, database, register or a similar kind of record, or a tag. Log books and similar records have the advantage of:

- Ensuring there is a permanent record of inspection and testing (for example, as a backup if tags are damaged or removed).
- Facilitating internal audit.
- Allowing more detailed information to be recorded.

Tag:

If the record of testing is a tag, it should be durable, water resistant, non-metallic, self-adhesive or well-secured, incapable of re-use and have a bright, distinctive surface.

The tag may also be colour-coded to identify the month in which the testing was carried out.

A tag may not include all of the required information. In that case, the rest of the required information must be recorded elsewhere and kept for the relevant period of time.

If a tag is not used you should ensure that tested electrical equipment is marked or labelled so that records of testing can clearly identify the relevant equipment.

10.3 INSPECTING AND TESTING EQUIPMENT – CONSTRUCTION AND DEMOLITION SITES:

Regulation 163 A person conducting a business or undertaking that includes the carrying out of construction work must comply with AS/NZS 3012:2010 Electrical installations – Construction and demolition sites.

AS/NZS 3012:2010 applies as if any term that is defined in that Standard and that is also defined in the WHS Act or Regulations has the same meaning as it has in the WHS Act or Regulations.

If there is any inconsistency between the Standard and Part 4.7 of the WHS Regulations then it is sufficient that the person complies with AS/NZS 3012:2010.

10.4 Residual current devices (RCDs):

The risk of electric shock often results from people making contact with unprotected energised parts of electrical equipment and earth. Contact with energised parts may occur by touching:

- Bare conductors.
- Internal parts of electrical equipment.
- External parts of electrical equipment that have become energised because of an internal fault.

- Metallic or other conductive equipment that has inadvertently become live.

Contact with earth occurs through normal body contact with the ground or earthed metal parts.

Serious injuries and fatalities may be prevented by the use of properly installed and maintained residual current devices RCDs, commonly referred to as 'safety switches'. An RCD is an electrical safety device designed to immediately switch off the supply of electricity when electricity 'leaking' to earth is detected at harmful levels. RCDs offer high levels of personal protection from electric shock.

RCDs work by continuously comparing the current flow in both the active (supply) and neutral (return) conductors of an electrical circuit. If the current flow becomes sufficiently unbalanced, some of the current in the active conductor is not returning through the neutral conductor and is leaking to earth. RCDs are designed to quickly disconnect the electricity supply when they sense harmful leakage, typically 30 milliamps or less. This ensures an electrical leak is detected and the electricity supply is disconnected before it can cause serious injury or damage.

While RCDs significantly reduce the risk of electric shock they do not provide protection in all circumstances. For example, an RCD will not trigger off electricity supply if a person contacts both active and neutral conductors while handling faulty plugs or electrical equipment and electricity flows through the person's body, unless there is also a current flow to earth.

When RCDs must be provided for use in workplaces:

Regulation 164: A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that any electrical risk associated with the supply of electricity to 'plug in' electrical equipment is minimised by the use of an appropriate RCD in certain higher-risk workplaces.

The following requirement only applies if it is reasonably practicable to provide an RCD in the higher risk workplaces:

- If electricity is supplied to the equipment requiring an RCD through a socket outlet not exceeding 20 amps the RCD must have a tripping current that does not exceed 30 milliamps.

This does not apply if the supply of electricity to the electrical equipment:

- Does not exceed 50 volts alternating current.
- Is direct current.
- Is provided through an isolating transformer that provides at least an equivalent level of protection.
- Is provided from a non-earthed socket outlet supplied by an isolated winding portable generator that provides at least an equivalent level of protection.

Construction and demolition sites

You must comply with AS/NZS 3012:2010 in relation to RCD requirements for construction and demolition sites.

RCD requirements only apply in relation to workplaces where electrical equipment supplied with electricity through a socket outlet (plug-in electrical equipment) is used or may be used in certain higher-risk workplaces. These are workplaces with operating conditions where:

- The normal use of electrical equipment exposes the equipment to operating conditions that are likely to result in damage to the equipment or a reduction in its expected life span, including conditions that involve exposure to moisture, heat, vibration, mechanical damage, corrosive chemicals or dust.
- Electrical equipment is moved between different locations in circumstances where damage.
  to the equipment or to a flexible electricity supply cord is reasonably likely.
- Electrical equipment is frequently moved during its normal use.
- Electrical equipment forms part of, or is used in connection with, an amusement device.

Common examples of electrical equipment requiring an RCD include:

- Hand-held electrical equipment, for example drills, saws, hair dryers, curling wands and electric knives.
- Electrical equipment that is moved while in operation, including jackhammers, electric lawn mowers, floor polishers and extension cords.
- Electrical equipment that is moved between jobs in ways that could result in damage to the equipment, for example electric welders, electric cement mixers, portable bench saws and extension cords.

Additional RCD requirements may be included in AS/NZS 3000:2007, local building and electrical safety laws.

Other legal requirements:

Additional RCD requirements may be included in local building and electrical safety laws.

Non-portable (or 'fixed') and portable RCDs:

Non-portable (or 'fixed') RCDs are RCDs that are installed at either the switchboard (see Figure 1) or a fixed socket outlet (see Figure 2).

Non-portable RCDs installed at the main switchboard protect the wiring connected to the RCD and electrical equipment plugged into the protected circuit.

Non-portable RCDs installed at a fixed socket outlet provide protection to electrical equipment plugged into the outlet.

Figure 1: Switchboard RCD unit

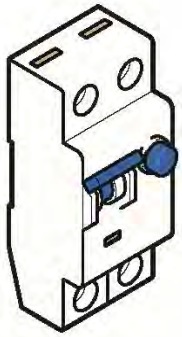
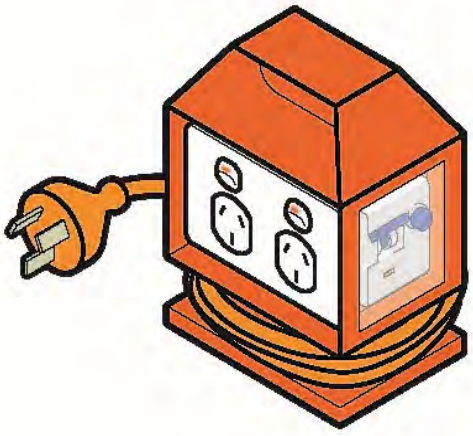


Figure 2: Fixed socket outlet RCD unit

Portable RCDs are generally plugged into a socket outlet and, depending on design, may protect one or more items of electrical equipment.

Figure 3: Portable RCD fitted directly to power cable

Figure 4: Portable RCD protected power board



Classes of RCDs:

RCDs are classified in AS/NZS 3190:2011 Approval and test specification – Residual current devices (current-operated earth-leakage devices). The two relevant types are:

Type	Description	General Guidance – Use
Type I	Type I RCDs have a residual current rating not exceeding 10 milliamps and a tripping time within 30 milliseconds.	Type I RCDs are the most sensitive and are required for electrical equipment that is directly connected to people, for example patients in hospitals or dental practices.
Type II	Type II RCDs have a residual current rating greater than 10 milliamps but not exceeding 30 milliamps and a tripping time within 300 milliseconds.	Type II RCDs are most suitable for personal protection against injury including electric shock.

Requirement for 'appropriate' RCDs:

The WHS Regulations require 'appropriate' RCDs to be selected and used in the specified higher-risk operating Conditions. If an RCD is required, the RCD must have a tripping current that does not exceed 30 milliamps if electricity is supplied to the equipment through a socket outlet not exceeding 20 amps.

The WHS Regulations do not prescribe whether RCDs must be non-portable or portable. The most 'appropriate' RCD will depend on the workplace environment.

To assist with proper selection, further information about the advantages and disadvantages of different kinds of non-portable and portable RCDs is described in Appendix B.

You may need to seek technical advice from a competent person about the kinds of RCDs that are appropriate for your workplace.

However, for construction and demolition sites you must comply with AS/NZS 3012:2010.

Additional requirements for the installation of non-portable RCDs may also apply under local building and electrical safety laws as set out in AS/NZS 3000:2007 Electrical installations (known as the Australian/New Zealand Wiring Rules).

Inspecting and testing RCDs

Regulation 165: A person with management or control of a workplace must take all reasonable steps to ensure that residual current devices used at the workplace are tested regularly by a competent person to ensure the devices are working effectively.

A record of testing (other than daily testing) must be kept until the device is next tested or disposed of.

AS/NZS 3012:2010 applies in relation to construction and demolition sites.

Persons with management or control of a workplace must take all reasonable steps to ensure that RCDs used at the workplace are tested regularly by a competent person. This requirement covers RCDs used in all operating environments including non-portable (or 'fixed') RCDs.

If an RCD is tested and found to be faulty it must be taken out of service and replaced as soon as possible.

Requirements for inspecting and testing electrical equipment used in certain higher-risk workplaces which could, for example include portable RCDs, are explained in Section 10.2 of this Code.

For guidance on approval and test specifications, see AS/NZS 3190: Approval and test specification – *Residual current devices.*

Testing new portable RCDs:

A new portable RCD unit should be tested by pressing the 'trip test' button to ensure the RCD is effective.

PART B:

ELECTRICAL WORK

11. MANAGING THE RISKS OF ELECTRICAL WORK

The WHS Regulations do not modify, supplement or otherwise change licensing or registration requirements (whichever applies) under electrical licensing laws.

Regulation 146 You must take all reasonable steps to ensure that electrical work that is required to be undertaken by a licensed or registered electrical worker is undertaken by a worker that meets the relevant licensing or registration requirements.

11.1 WHAT IS ELECTRICAL WORK?

Electrical work means:

- Connecting electricity supply wiring to electrical equipment or disconnecting electricity supply wiring from electrical equipment
- Installing, removing, adding, testing, replacing, repairing, altering or maintaining electrical equipment or an electrical installation.

Electrical work does not include:

- Work that involves connecting electrical equipment to an electricity supply by means of a flexible cord plug and socket outlet.
- Work on a non-electrical component of electrical equipment if the person carrying out the work is not exposed to an electrical risk.
- Replacing electrical equipment or a component of electrical equipment if that task can be safely performed by a person who does not have expertise in carrying out electrical work (e.g. replacing domestic fuses or light bulbs).
- Assembling, making, modifying or repairing electrical equipment as part of a manufacturing process.
- Building or repairing ducts, conduits or troughs where electrical wiring is or will be installed if:
    - the ducts, conduits or troughs are not intended to be earthed;
    - the wiring is not energised; and
    - the work is supervised by a licensed or registered electrical worker.
- Locating or mounting electrical equipment, or fixing electrical equipment in place, if this task is not performed in relation to the connection of electrical equipment to an electricity supply
- Assisting a licensed electrician to carry out electrical work if:
    - the assistant is directly supervised by the licensed electrician; and
    - the assistance does not involve physical contact with any energised electrical equipment.
- Carrying out electrical work, other than work on energised electrical equipment, in order to meet eligibility requirements in relation to becoming a licensed electrician.

Electrical work does not include work on electrical equipment that is operated by electricity at extra-low voltage except:

- Electrical equipment that is part of an electrical installation that is located in an area in which the atmosphere presents a risk to health and safety from fire or explosion
- In relation to electrical equipment that is part of an active impressed current cathodic protection system within the meaning of AS 2832.1:2004.

11.2 IDENTIFY THE HAZARDS:

See Section 9.1 of this Code.

11.3 ASSESS THE RISKS:

A risk assessment involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening.

Risks associated with electrical work may arise from:

- The properties of electricity. Electricity is particularly hazardous because electrical currents are not visible and do not have any smell or sound.
- How and where the electrical work is carried out. Electrical work may be carried out in difficult conditions, including in wet weather conditions, confined spaces and in atmospheres that present a risk to health and safety from fire or explosion.
- The competence of the persons carrying out the electrical work.

If energised or 'live' electrical work is proposed to be carried out, a risk assessment must be undertaken before the work starts and it must be carried out by a competent person and recorded. For more information about energised electrical work, see Section 7 of this Code.

The following risk factors associated with carrying out electrical work should be considered:

- Sources of electrical risks, including energy levels at the workplace.
- The nature of the electrical work to be carried out.
- Potential or actual high fault current levels (i.e. risks associated with arc flash).
- Availability of isolation points.
- Work practices.
- The type of plant, machinery and equipment to be used.
- Availability of suitable test instruments.
- Availability of properly rated PPE.
- The workplace and working environment, for example;
    - wet weather conditions;
    - in and around trenches, pits and underground ducts;
    - ladders, scaffolds, portable pole platforms, elevating work platforms, poles and towers;
    - confined spaces; and
    - ability to safely rescue persons.
- The competence of people carrying out the work, noting that licensing requirements may apply for the electrical work under local electrical safety laws.

Also consider individual workers' needs, for example:

- Is the worker experienced in, and have they been properly trained for, the working conditions?
- Is the worker physically fit for the proposed work, for example are they able to climb to heights to work on an overhead conductor or are they mentally alert and not fatigued?
- Does the worker have a visual or hearing impairment, for example do they have a visual colour deficiency or hearing loss?
- Does the worker take any medication that may increase their vulnerability to work in electrical environments?
- Is the worker working excessively long hours?
- Does the worker suffer from claustrophobia?

Appendix C may be used to assist with identifying hazards and assessing risks in carrying out electrical work.

11.4 CONTROL THE RISKS:

Once hazards have been identified and the risks assessed, appropriate control measures must be put in place. Electrical safety generally depends on appropriate training, work planning, and correct testing procedures and techniques.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the *hierarchy of risk control*. You must work through this hierarchy to choose the control that most effectively eliminates or minimises the risk in the circumstances, so far as is reasonably practicable. This may involve a single control measure or a combination of two or more different controls.

Elimination:

The most effect control measure is to remove the hazard or hazardous work practice. For example, working de-energised rather than energised eliminates significant electrical risks. That is why the WHS Regulations prohibit energised electrical work subject to certain exceptions.

Substitution:

Replacing a hazardous process or material with one that is less hazardous will reduce the hazard, and hence the risk. For example, it may not be reasonably practicable to eliminate energised electrical work altogether; however, even if it is necessary (for one of the legally permissible reasons) to work on an energised electrical part, it may be possible to de-energise the surrounding parts.

Isolation:

Preventing workers from coming into contact with the source of the electrical hazard will reduce the relevant risks.

Engineering controls:

Use engineering control measures to minimise the risk, for example insulation, guarding and installing residual current devices to prevent electric shock.

Administrative controls:

Administrative controls involve the use of safe work practices to control the risk, for example the provision of suitable and adequate training, establishing exclusion zones, use of permits and warning signs.

Personal protective equipment (PPE):

PPE includes protective eyewear, insulated gloves, hard hats, aprons and breathing protection. The PPE should be rated for the work to be done. If working on energised equipment, the PPE must be able to protect the user from the maximum prospective energy available at the work site.

Administrative controls and PPE do nothing to change the hazard itself. They rely on people behaving as expected and require a high level of supervision. Exclusive reliance on administrative controls and PPE must only occur where other

measures are not reasonably practicable or as an interim control while the preferred control measure is being implemented. See Regulation 36 of the WHS Regulations.

However, administrative controls such as procurement and personnel policies and procedures are very important in relation to electrical risks, as they will help to ensure that electrical work is carried out by a qualified electrician as required by law.

You should check that your chosen control measure does not introduce new hazards.

11.5 REVIEW THE CONTROL MEASURES:

See Section 9.4 of this Code.

12. RISK CONTROLS – WORKING DE-ENERGISED

Electrical work (whether energised or de-energised) must only be carried out by appropriately licensed or registered electrical workers.

For more information about the applicable electrical licensing or registration laws contact the local regulator in the relevant jurisdiction.

12.1 GENERAL PRINCIPLES – VERIFICATION OF DE-ENERGISED ELECTRICAL EQUIPMENT:

Regulation 152-156: A person conducting a business or undertaking must ensure that electrical work is not carried out on electrical equipment while the equipment is energised, subject to the prescribed exceptions discussed in Section 14 of this Code.

These provisions do not apply to work carried out by or on behalf of electricity supply authorities on the electrical equipment, including line-associated equipment, controlled or operated by the authority to generate, transform, transmit or supply electricity. This exemption does not extend to the electricity generation sector.

A person conducting a business or undertaking carrying out electrical work must ensure that, before electrical work is carried out on electrical equipment, the equipment is tested by a competent person to determine whether or not it is energised.

The person conducting a business or undertaking must ensure that:

- Each exposed part is treated as energised until it is isolated and determined not to be energised.
- Each high-voltage exposed part is earthed after being de-energised.

A person conducting a business or undertaking must ensure that electrical equipment that has been de-energised to allow for electrical work to be carried out cannot be inadvertently re-energised.

The safe work principle **'TEST FOR 'DEAD' BEFORE YOU TOUCH'** must be applied at all times.

Even if the electricity supply is believed to have been isolated, it must be assumed that all conductors and electrical components are energised until they have been proven de-energised.

Testing for 'dead' must be undertaken as appropriate for the duration of the electrical work. Testing is undertaken prior to touching, taking into account all relevant factors including the nature of the conductor, nature of the isolation, nature of work, if there has been a change or the area has been left idle (unattended) for a period.

The testing method (including the tester used) must be safe and effective. The electrical worker carrying out the testing must understand testing procedures and be competent in the use of the tester.

Panel voltmeters should not be used as the only method of determining whether an electrical part is de-energised.

If voltage testers are used they should be tested for correct operation immediately before use and again after use to confirm that the instrument is still working. This check should be considered to be part of the 'TEST FOR 'DEAD' BEFORE

YOU TOUCH' safe work principle.

If there are any exposed conductors in the immediate work area they should be separated by design or segregated and protected with insulated barricades, insulated shrouding or insulated material to prevent against inadvertent or direct contact.

For more information about testing instruments see Chapter 16 of this Code.

12.2 SAFE WORK METHOD STATEMENTS:

Regulation 161: A person conducting a business or undertaking must ensure that electrical work on energised electrical equipment is carried out in accordance with a safe work method statement.

Safe work method statements are required in relation to prescribed 'high risk construction work', in addition to energised electrical work. For more information about safe work method statements see Section 14.3 of this Code and for 'high risk construction work' see the Code of Practice: Construction work.

Work on cables (including cutting cables):

Where work is to be carried out on a cable, the cable should be de-energised.

Cables must be treated as energised and the procedures for working on energised electrical equipment followed until positive tests can be made that prove the cable is de-energised.

If the cable's connections are exposed the connections and attached live parts should be proved to be de-energised and identified before work starts.

Cutting cables presents particular risks. Both ends of the cable should be checked for isolation prior to cutting. Schematic diagrams or 'as built' diagrams should be checked carefully to establish secondary or metering circuits in multi-cored cables prior to cutting.

Additional precautions should be taken to ensure insulated or covered cables are de-energised, whether the cables are low voltage, high voltage or control cables.

For example, the action of cutting a multi-core control cable is likely to create a risk if secondary current from a current transformer is present. This risk may not be initially apparent; that is, the cable cutters may not be damaged when the cable is cut. A high voltage may develop across the open-circuited secondary winding causing an electric shock, arcing or a fault at a later stage.

Depending on the situation, alternative precautions may include:

- Using a cable spiking or stabbing device that is fit for purpose; and
- a combination of proving it is de-energised and physically tracing the cable.

13. LOW VOLTAGE ISOLATION AND ACCESS:

Working de-energised on low voltage electrical equipment or circuits requires the electrical equipment or circuits to be effectively isolated from all relevant sources of electricity supply. This may be done using opening switches, removing fuses or links, opening circuit breakers
or removing circuit connections.

The standard steps in low voltage isolation are:

Consultation	• Consulting with the person with management or control of the workplace (e.g. in relation to the timing of the work) and notifying any other affected persons as appropriate.
Isolation	• Identifying the circuit(s) requiring isolation. • Disconnecting active conductors from the relevant source(s), noting there may be multiple sources and stand-by systems/generators/photovoltaic systems as well as auxiliary supplies from other boards. • If a removable or rack out circuit breaker or combined fuse switch is used it should, if reasonably practicable, be racked out or removed then locked open and danger tagged.
Securing the isolation	• Locking the isolating switch(es) where practicable or removing and tying back relevant conductors to protect the person(s) carrying out the electrical work.
Tagging	• Tagging the switching points where possible to provide general information to people at the workplace.
Testing	• Testing to confirm the relevant circuits have been de-energised and any other relevant conductors in the work area.
Re-testing as necessary	• For example, if the person carrying out the work temporarily leaves the immediate area, checks and tests must be carried out on their return to ensure that the electrical equipment being worked on is still isolated to safeguard against inadvertent reconnection by another person. • For example, if a wire changes its status when cut, which can occur because it is lifted from earth.

The effectiveness of isolation procedures relies on:

- Isolation points being readily available/accessible and being suitable for the type of isolation (switching) being conducted.
- The necessary hardware.
- Having isolation procedures documented and accessible to electrical workers in the workplace.
- The provision of instruction, information and training of electrical workers involved with the electrical equipment.
- Appropriate supervision to ensure safe work procedures, including isolation procedures, are followed.

Safe isolation procedures (including the use of locks and tags discussed below) should be developed in consultation with relevant workers. If the workers are represented by a health and safety representative, the consultation must involve that representative.

13.1 SECURING THE ISOLATION:

Regulation 156 A person conducting a business or undertaking must ensure that electrical equipment that has been de-energised to allow electrical work to be carried out on it is not inadvertently re-energised while the work is being carried out.

For work on low voltage electrical equipment or circuits, ensure that the correct point of isolation is identified, an appropriate means of isolation is used and the supply cannot be inadvertently re-energised while the work is carried out.

A fundamental principle is that the point of isolation should be under the control of the person who is carrying out the work on the isolated conductors.

Tagging systems should also be used at the point(s) of isolation where possible for general information.

The isolation should be secured by locking off and tagging the electrical equipment as follows.

Instruction, information, training and supervision:

Appropriate instruction, information, training and supervision must be provided to ensure that electrical equipment that has been de-energised to allow electrical work to be carried out is not inadvertently re-energised. This includes appropriate instruction, information and training on isolation procedures to everyone who may be affected at the workplace.

Locking off:

Isolation points should be fitted with control mechanisms that prevent the electrical equipment from being inadvertently re-energised. The control mechanism should require a deliberate action to engage or disengage the device. It should be able to withstand conditions that could lead to the isolation failing, for example vibration.

This may include switches with a built-in lock and lock-outs for switches, circuit breakers, fuses and safety lock-out jaws (sometimes called 'hasps').

All circuit breakers, switches and combined fuse switch units should be locked off to secure the isolation where Possible. See Figure 5 for examples of locking-off methods incorporating danger tags.

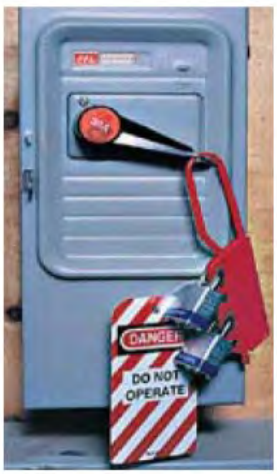
Alternative controls may include an additional component, for example a clip, screw, bolt or pin that can be inserted to prevent a switch from being operated. These types of controls should be used in conjunction with additional control measures, such as danger tags and permit systems.

If more than one person is working on the same de-energised electrical installation, individuals should ensure their own personal lock is applied to the isolation point, otherwise the principles of tagging apply (see below).

No-one should operate an isolator or knowingly use equipment where the isolator has a control mechanism attached.

In situations where isolation points are accessible by other persons at the workplace ensure, so far as is reasonably practicable, that the isolation method or system is not able to be inadvertently or easily compromised.

Figure 5: Locking off methods incorporating danger tags



Danger tagged locking off hasp

Danger tagged circuit breaker locking off devices

Tagging systems

Danger tags

Isolation involves using suitable warning or safety signs as well as locks or other controls to secure the isolation.

Where possible, a tag should be attached to normal locks (as shown in Figure 5) at all points of isolation used to de-energise electrical equipment from its electricity supply.

A tag does not perform the isolation function.

Danger tags are not required when using dedicated personal isolation locks.

Danger tags are used for the duration of the electrical work to warn persons at the workplace that:

- The electrical equipment is isolated or out of service.
- The electricity supply must not be switched back on or reconnected.
- Reconnecting electricity may endanger the life of the electrical worker(s) working on the equipment.

The danger tag should:

- Be durable and securely fixed to the isolator.
- Clearly state the warning, including any warning about specific hazards relating to the isolation (for example, multiple points of supply).
- Be dated and signed by the worker or workers involved in carrying out the work or, where appropriate, by the supervisor in charge of the workers.
- Be attached in a prominent position on each isolation point (i.e. the point or one of many points used to isolate electrical parts) or device.
- Only be removed by the signatories to the tag. If unavailable and unable to return, measures must be put in place to manage risks associated with removing the lock or tag (e.g. thorough investigation to ensure all workers and others at the workplace are safe).

If the work is incomplete, for example at a change of shift, the last person removes their danger tag or lock and replaces it with a warning tag e.g. out of service or caution.

When work is resumed, the person in charge of the work removes the warning tag (out of service or caution) and each person then applies their danger tag and/or lock.

When work is finally completed, each person removes their danger tag and/or lock.

Where a formal permit system is used, all reasonable steps must be taken to ensure that the designated sign-on and tagging procedures are followed.

Out of service tags:

Out of service or caution tags are used to identify electrical equipment that is not safe to use or fit for purpose. The out of service or caution tag should:

- Be durable and securely attached.
- Clearly state the nature of the defect or reason why the electrical equipment is unsafe.
- Be attached on a prominent position on each isolation point.
- Only be removed by a competent person after fixing or rectifying the defect and making the electrical equipment safe, or replacing with a danger tag in preparation to work on the equipment.

Figure 6: Example of a danger tag and out of service tag

Testing:

Testing must be carried out to confirm the relevant circuits have been de-energised and the status of any other relevant conductors in the work area.

Bonding conductors:

For guidance on bonding conductors if electrical equipment is isolated at a remote location or there is a risk of induced voltage being present, see AS/NZS 4836.

13.2 ALTERING ISOLATION FOR TESTING, FAULT FINDING AND RE-ENERGISING:

It may be necessary to change an isolation point to allow for testing or fault finding on energised parts, for example testing that may be required before returning electrical equipment to service and commissioning new electrical equipment.

Any testing or fault finding on energised parts must be carried out in accordance with requirements for energised electrical work, which are discussed in Section 14 of this Code.

If electricity supply is restored to part of the circuit then safe procedures for restoring electricity supply must be followed.

13.3 RESTORING POWER:

All reasonable steps must be taken to ensure that restoring electricity supply following isolation does not pose risks to health and safety at the workplace. For example:

- Appropriately terminating all conductors.
- Carrying out appropriate testing on any new, altered or repaired electrical equipment, for example tests for insulation resistance, earth continuity, polarity, correct connection and function testing.
- Removing safeguards, including temporary bonds and short-circuiting devices.
- Notifying all workers working on the electrical equipment and other affected workers at the workplace that electricity is to be restored.
- Taking precautions as appropriate to ensure that other electrical equipment is not inadvertently energised.
- Following procedures for removing any locks (or other control mechanisms), tags, notices and safety signs.

- Carrying out a visual inspection to ensure that all tools, surplus material and waste has been removed from the workplace.

When electricity is restored tests must be carried out to confirm that polarity is correct, actives are switched and, where applicable, phase sequences are correct before electrical equipment is used. For further information refer to AS/NZS 3017:2007 Electrical installations – Verification guidelines.

13.4 LEAVING UNFINISHED WORK:

If work is left unfinished, the workplace must be left in a safe state including, for example, by:

- Terminating any exposed conductors.
- Physically securing any exposed conductors or surrounding metal work.
- Tagging, taping off the electrical equipment and the workplace area.
- Informing affected persons at the workplace the work is not complete and advising of potential hazards.
- Taking any necessary precautions to ensure that electrical equipment cannot become inadvertently re-energised.
- Ensuring that the status of switchboards and electrical equipment are clearly and correctly labelled.
- Handing over adequate information to workers taking up the unfinished work to allow them to continue the work safely.

14. RISK CONTROLS – ENERGISED ELECTRICAL WORK:

14.1 PROHIBITION ON ENERGISED ELECTRICAL WORK:

Regulation 152 and 157: A person conducting a business or undertaking carrying out electrical work must ensure the work is not carried out on energised electrical equipment unless:

- it is necessary in the interests of health and safety that the electrical work is carried out while the equipment is energised (e.g. it may be necessary for life-saving equipment to remain energised and operating while electrical work is carried out on the equipment); or
- it is necessary that the electrical equipment to be worked on is energised in order for the work to be carried out properly; or
- it is necessary for the purposes of testing to ensure the equipment is de-energised as required by Regulation 155; or
- there is no reasonable alternative means of carrying out the work.

These requirements in relation to energised electrical work do not apply to work carried out by or on behalf of electricity supply authorities on the electrical equipment, including line-associated equipment, controlled or operated by the authority to transform, transmit or supply electricity. These authorities may be covered by separate electrical safety requirements.

Energised electrical work is electrical work carried out in circumstances where the part of electrical equipment being worked on is connected to electricity or 'energised'.

Electrical work must not be carried out on electrical equipment while energised only because it is merely more convenient for the electrical equipment to stay energised while the work is being carried out.

Energised electrical work must not be carried out unless the safety risk to those persons directly affected by a supply interruption is higher than the risk to the licensed or registered electrical workers proposed to carry out the energised electrical work. Only in extremely rare circumstances would it be possible to justify that it is not practicable to have a short break in supply. Most electrical installations suffer no harm through unplanned interruptions of this kind to the

network supply. In some cases a short break may allow for the insertion (and removal) of insulated barriers.

A Person conducting a business or undertaking requiring electrical work to be carried out may provide operational reasons appearing to justify energised electrical work. Requiring electrical work to be carried out while the equipment is energised when it could be avoided places an onerous responsibility on the business or undertaking commissioning the work to minimise the risks. Should an incident occur as a result of carrying out energised electrical work, the business or undertaking commissioning the work is at risk of being found not to have provided a safe workplace. This could contravene the primary duty of care under the WHS Act.

Energised electrical work is generally prohibited unless one or more of the exceptions under the WHS Regulations applies and the work is carried out in accordance with the WHS Regulations.

14.2 PLANNING AND PREPARATION:

Regulation 158: If electrical work is to be carried out on energised electrical equipment a person conducting a business or undertaking must ensure before the work commences that:

- A risk assessment is conducted by a competent person in relation to the proposed work and recorded.
- The area where the electrical work is to be carried out is clear of obstructions so as to allow for easy access and exit.
- The point at which the electrical equipment can be disconnected or isolated from its electricity supply is:
  - Clearly marked or labelled, and
  - Cleared of obstructions so as to allow for easy access and exit by the worker who is to carry out the electrical work or any other competent person, and
  - Capable of being operated quickly.
- The person authorises the electrical work after consulting with the person with management or control of the workplace.

Requirements relating to the point of supply under the third dot point above do not apply if the work is to be carried out on the supply side of the main switch on the main switchboard for the equipment and the point at which the equipment can be disconnected from its electricity supply is not reasonably accessible from the work location.

Risk assessments

See Section 11.3 for information on assessing the risks.

In addition to the listed considerations, the assessment should be designed to check compliance with the legislative requirements described above.

For energised electrical work, any significant findings should be recorded, reviewed from time to time and revised if necessary. See Section 9.4 of this Code for a description of triggers for review.

Consultation between duty holders

All persons conducting a business or undertaking at a workplace have a duty to manage electrical risks at the workplace while electrical work is being carried out, not just those carrying out the electrical work.

Electrical work will often be carried out at a place that is not under the management or control of the person conducting the business or undertaking carrying out the electrical work. For example, the place where work is carried out may be under the management or control of:

- If the place is a permanent workplace—the person conducting a business or undertaking from that workplace.
- If the place is a public place—the relevant local or state authority.

These persons will also have duties in relation to the health and safety of the electrical worker(s) and other persons at the place where the electrical work is being carried out.

All duty holders must, so far as is reasonably practicable, consult, cooperate and coordinate activities with each other to ensure compliance with their work health and safety duties.

In addition to the general duty to consult, the person conducting a business or undertaking carrying out the electrical work must ensure the electrical work is only authorised (among other things) after consulting with the person with management or control of the workplace.

Consultation should ensure that all relevant persons are aware of any scheduled electrical work to be carried out and also any relevant risks to health and safety arising from that work.

Arrangements should also be put in place to ensure, so far as is reasonably practicable, that all persons at the place receive suitable and adequate information and instruction, for example about the need to comply with warning or safety signs and stay out of any no go zones.

Residential premises

Occupiers of residential premises (as a person at a workplace) must take reasonable care that their acts or omissions do not adversely affect the health or safety of other persons, including that of electrical workers at their premises.

14.3 CARRYING OUT ENERGISED ELECTRICAL WORK:

Regulation 161: A person conducting a business or undertaking must ensure that electrical work carried out on energised electrical equipment is carried out:

- By a competent person who has tools, testing equipment and PPE that are suitable for the work, have been properly tested and are maintained in good working order;
- in accordance with a safe work method statement prepared for the work; and
- Subject to the exception explained below—with a safety observer present who is competent:
  - To implement the control measures in an emergency;
  - to rescue the worker who is carrying out the work if necessary; and
  - Has been assessed in the previous 12 months as competent to rescue and resuscitate a person.

A safety observer is not required if the work consists only of testing and the risk assessment shows there is no serious risk associated with the proposed work.

The person must ensure, so far as is reasonably practicable, that the person who carries out the electrical work uses the tools, testing equipment and PPE properly.

Additionally:

- Workers carrying out the electrical work must have or be provided with suitable and adequate information, instruction and training in:
  - planning and preparation requirements for the carrying out of energised electrical work;
  - safe work procedures, particularly those documented in safe work method statements; and
  - proper use of the relevant tools, testing equipment and PPE.
- First aid facilities must be provided at the workplace and they must be readily accessible.
- Emergency contact numbers should be made available at the workplace.

- Fire fighting equipment that is suitable for electrical fires should be accessible.
- The person with management or control of the workplace must be consulted before the electrical work is authorised.
- Energised conductors should be insulated where necessary to prevent inadvertent contact or flashovers.
- Unauthorised persons should be prevented from entering the work area, for example through the use of barriers and signage.

Many of these requirements require consultation, cooperation and coordination between multiple duty holders at the workplace.

Safe work method statements prepared for energised electrical work must describe consultation arrangements with the person with management or control of the workplace, including any authorisation procedures and position descriptions.

Safe work method statements:

Safe work method statements document a process for identifying and controlling health and safety hazards and risks. They may also incorporate a risk assessment.

Safe work method statements must be developed in consultation with relevant workers. If the workers are represented by a health and safety representative, the consultation must involve that representative.

Safe work method statements must:

- Identify the electrical work.
- Specify the hazards associated with that electrical work and risks associated with those hazards.
- Describe the measures to be implemented to control the risks.
- Describe how the risk control measures are to be implemented, monitored and reviewed, and may include the risk assessment prepared for the relevant work.

Safe work method statements must be written in a way that makes them readily understandable by the workers who are to use them.

A copy must be readily accessible to any worker who is to carry out the electrical work covered by the statement.

Safe work method statements must be kept up-to-date. They must, for example, be revised if a decision is made to change relevant safe work procedures at the workplace.

Appendix D to this Code includes a preventative actions checklist that may help you to identify hazards associated with electrical work and develop safe work methods.

If the electrical work falls within the description of 'high risk construction work' then the construction regulations in the WHS Regulations will also apply. For more information see the Code of Practice: Construction work.

Record keeping requirements:

Regulation 162: A person conducting a business or undertaking carrying out electrical work must keep:

- A copy of the risk assessment until at least 28 days after the work to which it relates is completed, and
- A copy of the safe work method statement until the work to which it relates is completed.

If a 'notifiable incident' under Part 3 of the WHS Act occurs in connection with the work to which the assessment or statement relates, the person must keep the assessment or statement (as the case requires) for at least two years after the incident occurs.

Hazards indirectly caused by electricity—conductive materials:

Persons can be exposed to electrical risks, including risks of electric shock, arcing and explosion, without directly contacting exposed energised parts of electrical equipment. Other conductive materials can provide current paths for the electric shock, fault current or both.

All materials should be regarded as conductive unless proved otherwise. Gases and liquids should be regarded as conductive. Particular care should be taken when exposed energised parts are near earthed situations.

The electric shock path to earth can be via conductive materials, such as concrete, timber with a high moisture content or water. For example, ladders that are damp or dirty may become conductive and create a potential hazard.

When working near exposed energised parts or working energised, the tools and equipment used should be non-conductive or insulated. Examples include:

- Torches.
- Telescopic devices.
- Rulers and tape measures.
- Insulated hand tools, for example screwdrivers, pliers, cable cutters, spanners and crimpers.
- Electrical or hydraulic powered tools.

Metallic personal items including watches and watchbands should not be worn by workers carrying out work near exposed energised parts. Metal objects worn on or close to the body increase the risk of electric shock. Additionally, electrical burns can be more serious because these objects retain heat and provide contact points for current to flow.

Examples of metallic personal items include jewellery, body piercings and metal spectacle frames.

Tools and equipment:

All workers should be competent in the safe use of their tools and equipment (including PPE). For more information about maintaining and inspecting tools and equipment, including testing and fault finding instruments, see Section 16 of this Code.

Work position:

Electrical work should be carried out from a position that minimises the risk of inadvertent contact with exposed energised parts and also the risk of an electric shock path being created. For example, safe work method statements should require, so far as is reasonably practicable, that electrical workers position themselves so that:

- An involuntary action like sneezing would not cause them to touch exposed energised parts
- No electric shock path can be created due to working in an awkward position, for example testing components towards the rear of a washing machine via the front panel
- No electric shock path can be created when carrying out phase sequencing or rotation testing on overhead mains or at an underground pillar.

Safety observers:

A competent safety observer must be present when work is carried out on energised electrical equipment, unless the work consists only of testing and a risk assessment shows that there is no serious risk associated with the proposed work.

The role of the safety observer should be clearly communicated and understood. The safety observer must:

- Be competent to implement the control measures in an emergency
- Be competent to rescue the worker who is carrying out the work if necessary, and must have been assessed in the previous 12 months as competent to rescue and resuscitate a person.

The safety observer should:

- Not carry out any other work or function that compromises their role, for example they should not be required to observe more than one task at a time
- Not be situated in the work basket of the elevating work platform from which the electrical work is being carried out
- Be able to communicate quickly and effectively with the electrical worker(s) carrying out the work. Specialist equipment may be necessary if there is a barrier to communication
- Not have any known temporary or permanent disabilities that would adversely affect their role and performance.

Safety barriers and signs

Barriers and signs may be designed, erected or installed to:

- Protect electrical workers from inadvertently contacting energised exposed parts
- Ensure that access to and egress from the work location of live work allows for clear, unobstructed passage
- Warn others and direct people away from dangerous work areas.

Different kinds of safety barriers may be required for different purposes. For example:

- To protect electrical workers from inadvertently contacting energised exposed parts—a physical safety barrier should consist of a non-conductive material such as wood or plastic or, alternatively, correctly earthed steel and be strong enough to withstand the impact from falling objects or loose material
- To exclude persons generally from a work area where there is a risk of energised exposed parts—secure housings, enclosures, doors and room may provide appropriate safety barriers.

A risk assessment should be carried out by a competent person to advise on whether a barrier is appropriate to address the relevant risks and, if so, appropriate design and correct materials.

The barrier must be erected safely. This may require switching off or isolating the electricity supply while the barrier is installed.

A barrier may be temporary or permanent and, if applicable, should clearly designate the safe work area by defining the approach path to the relevant piece of equipment.

Emergency planning:

Regulation 43: An emergency plan for the workplace must be prepared, maintained and implemented at the workplace.

For this purpose, you must consider all relevant matters, including the following:

- The nature of the work being carried out at the workplace.
- The nature of the hazards at the workplace.
- The size and location of the workplace.
- The number and composition of the workers and other persons at the workplace.

Quick action after an electrical incident that causes injury can save a life or significantly reduce the severity of the injury. Even if an electrical incident does not appear to have caused injury at the time, there may be some delayed effects.

Any person who is involved in an electrical incident involving an electric shock should receive medical attention.

Incidents that expose a worker or any other person to a serious risk from an electric shock must be notified to the regulator and may also be notifiable separately to an electrical safety regulator.

A well-prepared emergency response assists in managing the severity of the injury where an incident has occurred and takes into account the health and safety of those required to respond to the incident. For example, in an exposed energised high voltage situation, the electricity supply should be isolated and proved de-energised before carrying out a rescue.

Special consideration must also be given in relation to other higher-risk workplaces including confined spaces, working at heights (e.g. elevating work platforms), workplaces with hazardous atmospheres which present a risk to health or safety from fire or explosion, and trenches, shafts and tunnels.

14.4 LEAVING UNFINISHED WORK:

Refer to Section 13.4 of this Code.

14.5 PARTICULAR ENERGISED ELECTRICAL WORK—TESTING AND FAULT FINDING:

De-energised testing methods should be used before energised testing methods:

Fault finding should first be attempted in a de-energised environment using de-energised testing methods. If unsuccessful, energised testing methods may be used subject to meeting the requirements of the WHS Regulations and this Code for working energised.

Planning and preparation, etc:

Before commencing any testing or fault finding in an energised environment:

- Identify exposed conductive parts that could become energised while using test instruments.
- Use temporary or fixed barriers to prevent electrical workers from inadvertently contacting exposed conductive parts.
- Use only appropriate insulated and rated tools, test instruments and test probes.
- Carry out checks to ensure that the test instruments to be used are appropriate and functioning correctly
- Use only appropriately rated PPE.
- Use a safety observer, if required by the risk assessment conducted for the work.
- Ensure that only authorised persons may enter the immediate area where the work is to be carried out.
- Carry out a regular review of the work situation to ensure that no new hazards are created during the process.

When testing or fault finding is completed, circuits and equipment must be restored to a safe condition. For example, disconnected conductors should be reconnected and left in a safe state, covers replaced, and accessories and equipment properly secured.

Procedures involving coordination, such as procedures related to switching circuits or equipment on and off during the fault finding or testing process, must be implemented and maintained at all times.

Safe work procedures—hazardous atmospheres:

See AS/NZS 3000:2007 for guidance on electrical testing and fault finding in hazardous atmospheres that present a risk to health and safety from fire or explosion.

15. RISK CONTROLS – WORKING NEAR ENERGISED ELECTRICAL PARTS:

Electrical work on any installation, equipment, machinery, plant or appliance may pose a risk of direct or indirect contact with nearby exposed energised electrical parts (e.g. installing or testing circuits on a switchboard adjacent to exposed live electrical parts).

In some circumstances the risks associated with undertaking electrical work near exposed live parts can be equivalent

to those associated with live electrical work. Risks to be considered, but not limited to, are those arising from:

- Energised parts.
- Exposed high temperature parts.
- Moisture entering the electrical equipment.

Identifying and assessing the risks and developing risk control measures as described in the Code of Practice: *How to manage work health and safety risks* will provide further assistance in developing safe work practices.

15.1 PLANNING AND PREPARATION:

If there is a safety risk associated with working near energised electrical parts a written risk assessment should then be made to help determine the risk level and decide on appropriate risk control measures. Risks include:

- Electric shock if exposed energised parts are touched.
- Explosion, for example if a metal tool is dropped onto bus bars causing a short circuit.
- Exposed high-temperature parts causing burns to bare skin.
- Electrical fires induced, for example, by allowing moisture or dust to enter electrical equipment.

The following factors may be taken into account in assessing risks:

- Type of work carried out and tools or equipment used.
- Proximity of the work to energised parts.
- The types of tools and equipment used in the work, for example the conductive properties of tools.
- Environmental conditions such as confined space, wet surfaces or unfavourable weather.
- Assessing the need to repair equipment while it remains energised, for example cleaning a low voltage switch room.
- Work that may impose additional risks, for example welding or grinding that could damage adjacent electrical lines or equipment.

15.2 WORKING NEAR ENERGISED ELECTRICAL PARTS:

You must work through the hierarchy of controls to choose the control that most effectively eliminates or minimises the risk of working near energised electrical parts, so far as is reasonably practicable. This may involve a single control measure or a combination of two or more different controls.

Under the WHS Regulations substitution, isolation and engineering controls are ranked at the same level of protection, ahead of administrative controls and then PPE.

Elimination:

The most effective control measure is to remove the hazard or hazardous work practice. This could mean electrically isolating the nearby electrical equipment or installation before starting work. When disconnecting the installation or equipment from supply, a method should be applied to ensure the equipment is not reconnected while the work is carried out. For example, you could place the plug in a lockable enclosure. If equipment is connected to supply by fixed wiring, use other suitable means of isolation as discussed elsewhere in this Code. The isolation process should be clearly documented so that everyone involved knows exactly what to do.

Redesigning equipment or work processes could involve designing and installing equipment that does not have energised parts near the work area.

Substitution:

Replacing a hazardous process or material with one that is less hazardous will reduce the hazard, and hence the risk – for example replacing instead of repairing a faulty part. This could mean shorter downtime and not having to work live, lessening or eliminating the risk of exposure.

Isolation:

You may be able to isolate the risk, for example by erecting a physical barrier to prevent any contact with electrical risk, directly or indirectly. A physical barrier should consist of a non-conductive material such as wood or plastic or, alternatively, correctly earthed metal, and be strong enough to withstand any impact from falling objects or loose materials. Before any barriers are erected, a risk assessment must be carried out by a competent person to ensure the appropriate design and correct materials are used. The barrier must be erected safely. This may require isolating the electricity supply while the barrier is installed.

Engineering controls:

For example, installing residual current devices to prevent electric shock.

Administrative controls:

Administrative controls involve the use of safe work practices to control the risk, for example the provision of suitable and adequate training, establishing exclusion zones, and use of permits and warning signs.

Personal protective equipment (PPE):

PPE includes protective eyewear, insulated gloves, hard hats, aprons and breathing protection. The PPE should be rated for the work to be done. If working on or near energised equipment, the PPE must be able to protect the user from the maximum prospective energy available at the work site.

15.3 IMPLEMENTING RISK CONTROL MEASURES:

In implementing risk controls, you may develop a safe work method statement that:

- Specifies the determined risk controls.
- Sets out the steps that need to be taken to implement the risk controls.
- Identifies and allocates the resources necessary to implement the measures (i.e. time and expenses).

  Allocates responsibilities and accountabilities (e.g. who does what and when).
- Sets a date for reviewing the risk controls.

A safe work method statement must be prepared for construction work that is carried out on or near energised electrical installations or services. Further information about these requirements is available in the Code of Practice: *Construction work*.

15.4 REVIEWING RISK CONTROL MEASURES:

See Section 9.4 of this Code.

16. TOOLS AND EQUIPMENT:

16.1 INSPECTION AND TESTING:

Tools, instruments and equipment that are poorly maintained, inappropriately used or not fit for purpose can cause injuries, for example:

- Inadequately insulated tools and test instruments.
- Incorrectly rated instruments.

Unrestrained tools may fall into energised switchboards and compromise the integrity (including safety) of the

equipment. The use of lanyards around wrists, tool holders and restraints such as tool pouches and baskets may be used to address these risks.

The tools, instruments and equipment used by electrical workers often have special design characteristics, for example many are insulated. Inadequate maintenance may lead to serious electrical risks, for example insulating medium might conceal a mechanical defect that could cause an open circuit in a testing device.

Insulated tools and equipment must be suitable for the work and be maintained in good working order, including by regular maintenance, inspection and testing. Where any doubt exists that the insulation of tools and equipment might not be adequate they should not be used.

Maintenance and inspection should be carried out according to manufacturer's instructions.

16.2 LADDERS, SCAFFOLDS AND SIMILAR EQUIPMENT:

Certain ladders, scaffolds and similar equipment may pose electrical risks including:

- Metallic or wire reinforced ladders and scaffolds are conductive and may create an electric shock path, for example:
    - a ladder slipping while work is being carried out on it, causing the worker on the ladder to touch exposed energised parts, for example grabbing a mains box;
    - a gust of wind blowing an extension ladder into nearby overhead power lines; and
    - in switch rooms and switchyards—conductive devices such as aluminium ladders and scaffolds creating electric shock paths and current paths to earth, for example a metal wire reinforced ladder causing a fault to ground if the ladder touches a live 33 kV busbar.
- When using ladders, scaffolds and similar equipment, workers are more likely to touch open wiring such as overhead lines

  Iin cases where lines are carrying large currents, conductive scaffolds may become subject to induction
- Portable scaffolds may damage insulation when moved if the scaffold strikes conductors or leads.

Consideration should be given to eliminating the use of metallic, wire reinforced or otherwise conductive ladders; these items should not be used in close proximity to equipment where an electrical hazard may result from their use. These types of ladders should be avoided for any kind of electrical work.

Other effective risk control measures may include:

- Identifying if there are exposed energised parts nearby. In this situation, risk control measures such as de-energising, fitting covers, using a safety observer, or a combination of these, should be considered.
- Employing safe work practices, including:
    - two or more people carrying long devices in switchyards and switch rooms in a position below shoulder height;
    - two people handling extension ladders in windy conditions;
    - restraining ladders using head ropes or footropes, or both; and
    - if practicable—using a platform-style step ladder
- If conductive scaffolding is used within high-voltage enclosures or in situations where there is induction, bonding the structure to the earthing system. Depending on the construction of the scaffold, a number of sections may need to be bonded to ensure an equipotential state.

16.3 INSULATING BARRIERS AND INSULATING MATS:

Insulating covers and mats used for electrical safety purposes should comply with AS/NZS 2978:1995 *Insulating mats*

for electrical purposes.

Insulated barriers should be of suitable material to effectively separate electrical workers from adjacent energised equipment.

Insulated covers and mats should be visually inspected for possible defects before and after each use.

16.4 TEST INSTRUMENTS:

The tools, testing equipment and PPE for testing and fault finding must be suitable for the work, properly tested and maintained in good working order.

Workers carrying out electrical testing must be appropriately trained and competent in test procedures and in the use of testing instruments and equipment, including:

- Being able to use the device safely and in the manner for which it was intended.
- Being able to determine, by inspection, that the device is safe for use, for example the device is not damaged and is fit for purpose.
- Understanding the limitations of the equipment, for example when testing to prove an alternating current circuit is de-energised, whether the device indicates the presence of hazardous levels of direct current.
- Being aware of the electrical safety implications for others when the device is being used, for example whether the device causes the electric potential of the earthing system to rise to a hazardous level.
- Knowing what to do to ensure electrical safety when an inconclusive or incorrect result is obtained.

Checks carried out on test instruments:

Test instruments that are to be used or connected to electrical equipment should meet the following conditions:

- Be suitable for the work in terms of their function, operating range and accuracy.
- Be in good condition and working order, clean and have no cracked or broken insulation. Particular care must be taken regarding the condition of the insulation on leads, probes and clips of test equipment.
- Pose no danger of electrocution to workers or damage to the electrical equipment during testing.
- Have suitably insulated leads and connection probes that enable connection or contact with energised parts to be made with minimal risk to the electrical worker.
- Provide suitable protection against hazards arising from over-voltages that may arise from or during the testing or measurement process.

AS 61010.1:2003 Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use – General requirements provides a classification for instruments on the basis of their immunity to over-voltage, which is liable to be experienced in different parts of electrical equipment. Devices should be rated as Category III or IV to enable their use on all parts of the equipment.

Test probes and other equipment should be designed and selected so that they cannot inadvertently short circuit between live conductors or live conductors and earth. The terminals of test equipment should be shrouded and all other test sockets on measuring instruments should be designed so as to prevent inadvertent contact with any live test socket or conductor when equipment is in use. Where appropriate, test leads and testing devices need to be provided with suitable fuse protection. Testing equipment, where used in hazardous flammable areas, should be designed and clearly marked as being suitable for use in these conditions.

Testing equipment used for detecting an energised source should be trialed first to prove that it is functioning correctly immediately before and after the test has taken place. The standard test regime is to test a known source of energy, test the de-energised circuit for zero volts then test the known source again. A faulty indicator will always read zero so

must be proved before and after the test.

Proximity voltage testers:

To confirm a positive indication and to establish the circuit voltage, the use of an alternative test instrument that incorporates a visual display should be used before commencing electrical work on the equipment.

Testers for detecting an electric field surrounding an energised conductor may not be suitable for testing cables that are surrounded by a metallic screen, enclosed in a metallic pipe or duct, or cables carrying direct current and in some other circumstances.

Proximity voltage testers are not reliable in proving de-energised and should only be treated as an indicator. Proximity voltage testers should be tested for correct operations immediately before use and again immediately after use, particularly if the test result indicates zero voltage, to confirm that the instrument is still working correctly.

16.5 Personal protective equipment (PPE):

PPE for electrical work, including testing and fault finding, must be suitable for the work, properly tested and maintained in good working order. The PPE must be able to withstand the energy at the point of work when working energised.

Training must be provided in how to select and fit the correct type of equipment, as well as training on the use and care of the equipment so that it works effectively.

Depending on the type of work and the risks involved, the following PPE should be considered:

- Face Protection—use of a suitably arc rated full face shield may be appropriate when working where there is potential for high current and arcing.
- Eye Protection—metal spectacle frames should not be worn.
- Gloves—use gloves insulated to the highest potential voltage expected for the work being undertaken. Leather work gloves may be considered for de-energised electrical work.
- Clothing—use non-synthetic clothing of non-fusible material and flame resistant. Clothing made from conductive material or containing metal threads should not be worn.
- Footwear—use non-conductive footwear, for example steel toe capped boots or shoes manufactured to a suitable standard.
- Safety Belt/Harness—safety belts and harnesses should be checked and inspected each time before use with particular attention being paid to buckles, rings, hooks, clips and webbing.

16.6 FIRST AID:

All workplaces must ensure the provision of first aid for the workplace, that each worker at the workplace has access to the equipment and access to the facilities for the administration of first aid.

All workplaces must ensure that an adequate number of workers are trained to administer first aid at the workplace or workers have access to an adequate number of other persons who have been trained to administer first aid.

Special requirements for safety observers apply in relation to certain energised electrical work. See Section 14.3 of this Code.

For further guidance on how to provide first aid refer to the Code of Practice: First aid in the workplace.

17. HIGH VOLTAGE ELECTRICAL WORK:

Requirements for electrical work on high voltage equipment after switching, isolation, short circuiting and earthing are specialised requirements. Only competent electrical workers who have received appropriate training in high voltage electrical work are permitted to work on high-voltage electrical equipment.

For more information you should seek further advice about working on or near high-voltage electrical installations from a specialist electrical contractor or the local electricity supply authority.

Additional risks associated with high voltage:

The electrical risks and consequences of an electrical incident involving high voltage may be significantly higher than low voltage. Under fault conditions, the higher voltages (potentials) and fault current levels release massive quantities of energy. These risks must be effectively managed.

Planning for high voltage installation work:

Persons conducting a business or undertaking who have a high voltage electrical installation should prepare an Installation Safety Management Plan for their workplace. The plan should address the risks associated with the operation and maintenance of the high voltage installation.

This may include:

- A single line diagram for the installation, showing all switches and circuit breakers and their identifying labels or numbers.
- Site-specific operating rules covering all aspects of operating the high voltage installation, including procedures for arranging isolation of the installation from the local electricity network.
- Procedures for identifying hazardous areas including any confined spaces associated with the installation.
- Competency requirements for persons who may be permitted to operate or work on the high voltage installation, including appropriate requirements for re-training, re-testing and re-accreditation.
- Induction procedures for new contractors.
- Regular inspection and maintenance programs to ensure the installation remains serviceable and safe.
- Procedures for ensuring there is no extension or alteration of the installation without permission from the local electricity supply authority.
- Procedures for the safe handling of insulating oils and other substances that may be required for maintenance or repair.
- Procedures including warning signs for ensuring that all parts of the high voltage installation (e.g. underground cables and high voltage overhead power lines) are not damaged by heavy vehicles or other mobile plant, for example mobile cranes.

APPENDIX A – MEANING OF KEY TERMS:

Competent person means:

- For electrical work on energised electrical equipment or energised electrical installations (other than testing referred to in Regulations 150 and 165), a licensed or registered electrician or any other person permitted to carry out or supervise electrical work under relevant State or territory legislation (e.g. electrical engineer, electrical apprentice)
- For any other case, a person who has acquired through training, qualification or experience and the knowledge and skills to carry out the task.

De-energised means separated from all sources of supply but not necessarily isolated, earthed, discharged or out of commission.

Electrical equipment means any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that:

- Is used for controlling, generating, supplying, transforming or transmitting electricity at a voltage greater than extra-low voltage
- Is operated by electricity at a voltage greater than extra-low voltage
- Is part of an electrical installation located in an area in which the atmosphere presents a risk to health and safety from fire or explosion, or
- Is, or is part of, an active impressed current cathodic protection system within the meaning of AS 2832.1:2004.

Electrical equipment does not include any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that is part of a motor car or motorcycle if:

- The equipment is part of a unit of the vehicle that provides propulsion for the vehicle.
- The electricity source for the equipment is a unit of the vehicle that provides propulsion for the vehicle.

Electrical installation means a group of items of electrical equipment that:

- Are permanently electrically connected together.
- Can be supplied with electricity from the works of an electricity supply authority or from a generating source.

Energised (live) means connected to a source of electrical supply or subject to hazardous induced or capacitive voltages.

Isolated means disconnected from all possible sources of electricity supply and rendered incapable of being made energised without premeditated and deliberate action.

Residual current device (RCD) means a device intended to isolate supply to protected circuits, socket outlets or electrical equipment in the event of a current flow to earth that exceeds a predetermined value. The RCD may be fixed or portable.

Socket outlet is a device for detachably connecting electrically operated equipment to a power supply. The term 'socket outlet' includes a cord-extension socket attached to a flexible cord that is permanently connected to installation wiring.

Voltage:

- Extra low voltage means voltage that does not exceed 50 volts alternating current (50 V A.C.) or 120 volts ripple-free direct current (120 V ripple-free D.C.).
- Low voltage means voltage that exceeds extra-low voltage and does not exceed 1000 volts alternating current (1000 V A.C.) or 1500 volts direct current (1500 V D.C.).
- High voltage means voltage that exceeds low voltage.

APPENDIX B – ADVANTAGES AND DISADVANTAGES OF NON-PORTABLE AND PORTABLE RCDS:

Non-Portable and Portable RCDs	Advantages and Disadvantages
Non-portable RCDs	Non-portable (or 'fixed') RCDs are installed at either the switchboard or a fixed socket outlet.
Non-portable RCDs installed at the main switchboard	Non-portable RCDs will protect all the wiring and electrical equipment plugged into the relevant circuit(s).
Advantages	• Provide permanent and secure protection against electrical faults, including protection against fixed-wiring faults as well as electrical equipment faults. • Are more secure as they are usually inaccessible except to any person who holds the key to the switchboard. • May be cost-effective if the existing switchboard can accept the installation without major modification and RCD protection is required on circuits supplied from the main switchboard. • Are usually adaptable as these RCDs can be installed in new, modified or existing electrical installations.
Disadvantages	• A fault in one piece of equipment may unnecessarily shut down entire operations. In some cases this could create greater risks associated with uncontrolled cessation of a work process. • Fault detection and isolation may be complex because the RCD protects all sockets past the point where it is installed and may be tripped at any point. • Installation may be costly if the pre-existing switchboard requires modification.
Non-portable RCDs installed at a socket outlet	• These non-portable RCDs are installed at selected locations and provide protection to electrical equipment plugged into the outlet. • Socket outlets protected by non-portable RCDs should be labelled, for example by stating 'RCD Protected' or similar. This will indicate to the person using the socket outlet that a non-portable RCD is fitted.
Advantages	• Protection against electrical shock is permanent • Suitable for areas where the work environment is used in many different ways or difficult to control, including public places. • Readily accessible for testing and re-setting. This can be a safe and cost-effective alternative if the switchboard option is not reasonably practical. • Adaptable, as these RCDs can be installed at any fixed socket outlet where the electrical equipment requiring RCD protection is used. • Potentially the most cost-effective option because it is permanent, protects everything plugged into it and is easily identified by the user.

Non-Portable and Portable RCDs	Advantages and Disadvantages
Disadvantages	• Fixed-wiring protection only applies to wiring past that socket on the circuit. • Fault detection and isolation might be complicated as the RCD may be tripped by a fault at any point past the RCD on the circuit. • Damage to the socket outlet will require the RCD to be replaced.
Relevant considerations in deciding between options for non-portable devices	• In deciding between options for non-portable RCDs, you should consider the size of the building or site, its use, and any plans to refurbish, refit or rewire the building. • It may be safer and more cost-effective to ensure all circuits are protected by one or more RCDs rather than selectively install individual RCDs at some socket outlets to accommodate your current workplace needs, which may change. • If you install new circuits or modify pre-existing circuits you must protect those circuits with an RCD consistent with AS/NZS 3000:2007, which is subject to some exemptions.
Portable RCDs	• These RCDs protect the electrical equipment that is plugged into them. • In some circumstances the most appropriate RCDs may be portable RCDs, particularly to protect mobile workers that do not have fixed places of work and whose PCBU may have little control over electrical installations where they work. • Workers using hand-held or portable electrical equipment should be advised as to whether the outlets they use are adequately protected by RCDs. If in doubt you should ensure that portable RCDs are provided to these workers and take all reasonable steps to ensure they are used. • The use of a portable RCD in a circuit already protected by a non-portable RCD has no detrimental effect on the operation of either RCD.
Portable RCDs—portable plug type	• Portable plug-type RCDs can be plugged into a socket outlet to protect a single piece of equipment. • They can be incorporated into a power cable or can be the RCD unit alone, without a cord.
Advantages	• Provide RCD protection for electrical equipment used in workplaces where users may be unsure as to whether there is RCD protection. • Can be allocated to users rather than to all electrical equipment. • Can be plugged into existing installations where the electrical equipment requiring protection is to be used.
Disadvantages	• Provide no protection from faults in fixed-wiring • May be subject to abuse so frequent testing is required • If not incorporated into a single appliance's power cord, will require additional administrative controls to ensure that workers use them

Non-Portable and Portable RCDs	Advantages and Disadvantages
	• May be very difficult to test if plug-type RCDs are installed directly onto electrical equipment connection cords. For this reason they are not generally recommended.
Portable RCDs—portable stand-alone unit	• Portable stand-alone units are RCDs incorporated into a power board. They provide multiple protected socket outlets and can provide RCD protection to multiple items of electrical equipment from one power board.
Advantages	• Provide RCD protection for electrical equipment used in workplaces where users may be unsure as to whether there is RCD protection. • Can be allocated to users rather than to all electrical equipment. • Provide a number of protected socket outlets from the one RCD unit. • Can be plugged into existing installations where the electrical equipment requiring protection is to be used.
Disadvantages	• Provide no protection from faults in fixed-wiring. • May be subject to abuse so frequent testing is required. • Rely on administrative controls to ensure that workers use the stand-alone units. • Can be less economical if many items of electrical equipment require protection.

APPENDIX C – RISKS ASSOCIATED WITH ELECTRICAL WORK:

Activity	Risks
Isolation and access	• Correctly isolating supply but not discharging residual energy e.g. a capacitive charge may be present in power supplies, single-phase motors or high power factor fluorescent fittings. • Insulation and equipment failing or partially breaking down. • Earth connection failing to stop an electric shock in earthed conductive parts when step and touch potentials exist. • Carrying out the task causes a person, something a person may be handling or something a person is in contact with to intrude into minimum safe approach distances. • A power system conducting fault current or being subject to high inrush currents. • Instructions or markings on the parts being inadequate, incorrect or both. • Using equipment not designed for, or capable of, an operation e.g. opening a 'no load – bus tie' under load conditions or relying on an open circuit breaker as an isolation point. • Another person energising circuits while a worker is working on them, or a vehicle hitting a pole. • Natural elements (i.e. lightning or wind) causing static charges, overhead mains to clash or a high-voltage circuit to fall onto a low-voltage circuit. • The inter-core capacitive effects of long multi-phase cables. • Changes to wiring not being reflected in drawings i.e. the drawings are not 'as built' e.g. a live control or supervision circuit being present though the drawing indicates otherwise. • If there has been an error in wiring, opening the isolator may not de-energise the switchboard e.g. if incorrect connection (incorrect polarity) occurred in the service to an installation, opening the main switch will open circuit the neutral rather than the active. • Intentionally disabling an interlock to perform a task e.g. opening the shutter of a 'rackable' circuit breaker test to prove de-energised in the orifice. • Inadvertently disabling an interlock while performing a task e.g. in a switchboard with an integrated circuit breaker, isolator and earth switch, the operator accidentally moving the isolator into the earthed position. • Poor direction and insufficient knowledge e.g. a worker is instructed to apply a set of earths and short circuits at a Ring Main Unit (RMU). The worker correctly observes the isolator is open, however they assume the earth switch can be closed because the isolator is open. As most RMUs are configured so the earth switch earths the cable, not the busbar, it is possible the worker would be earthing and short-circuiting a live circuit. • When applying a set of portable earths and short-circuits, accidental or inadvertent contact is made with live parts. If this occurs, the worker is using a device that is conducting fault current. • The threshold value (lowest level of indication or reading) of a test device causing a misleading interpretation of a test to prove de-energised. Depending on the device used, an indication that parts are not energised in a high-voltage situation does not mean that low-voltage and direct current voltages are absent. • Application of earthing and short-circuiting devices that depend on a conductive path through a fuse or circuit breaker that is not fit for purpose.

Activity	Risks
	• Ineffective connection to the general mass of the earth e.g. the electrode, grid or temporary electrode that the earth and short circuits relies upon in a situation where a single phase becomes energised. • Application of the short circuit portion of portable earthing devices prior to the earth tail being connected to the earth. • Arcing and splattering associated with the application of earths and short circuits, causing a risk. The arcing or splattering may result from using the device in situations that range from energised conductors to residual energy such as capacitance. If the parts are energised, the worker can draw the arc from one phase to the other, causing a phase-to-phase fault. • A potential electric shock path existing once the earth tail is connected to earth. A worker may touch another live part and the earthed connector at the same time, for example in a Common Multiple Earthed Neutral (CMEN) area, even when working on high-voltage, contact between the earthed connector and a low-voltage phase can cause an electric shock.
Working near sources of arcing, explosion or fires	Arcs, explosions and electrical faults can cause burns. Workers should be protected from the effects of burns. Examples include: • Materials providing a conductive path between sources of potential, for example uninsulated tools falling across busbars • Abnormal conditions on circuits such as: o Lightning striking mains. o Circuits of different voltages touching each other e.g. high-voltage contacting low-voltage circuits. o High voltage in the secondary circuit of a current transformer if an open circuit occurs when current is flowing in the primary circuit. • Abnormally high voltages when synchronising different supplies. For example, if the waveforms are 180° out of phase, twice the peak-to-peak voltage may be imposed • Voltage multiplication effects, including: o Ferro-resonance where the capacitive and inductive components of underground cables and transformers can significantly increase voltages when single-phasing occurs. o Re-strike can occur if capacitors are energised, de-energised and re-energised in rapid succession. • Leakage or electrical discharge causing insulation to be compromised, for example a combination of a build-up of contaminants on insulators, wet weather or tracking through air voids in pitch filled insulating chambers. • Failure of insulating mediums.
Working in unsafe atmospheres	• After faults and fires, often in emergencies, electrical workers may be exposed to unsafe atmospheres. Toxic gases and lack of oxygen can cause illness and death. General workplace health and safety risk control measures should be used in these situations.

Activity	Risks
	• The method of extinguishing fires should be addressed. Typically, carbon dioxide or powder type devices are used against electrical fires. Extinguishers including water, foam and wet chemical should not be used as they significantly increase the risk of electric shock.
Modifying or repairing existing low-voltage electrical installations	• Electrical drawings/tables not reflecting 'as installed' installations. • More than one source of supply or energised circuit may be available on the premises or at the equipment. • The supply becoming energised during the work. • Automatic starting of machinery after supply is restored. • Managing metallic shavings (swarf) ingress into conductive parts of equipment. • A conductor considered to be de-energised was found to be energised. • Old installations (where several modifications may have been made, circuits have not been identified, or the insulation has deteriorated). • Voltages on disconnected conductors, particularly neutrals. • Installations where the MEN system is used, the rise in the earth potential due to a high impedance return path to the distribution neutral. • Lack of information about isolation, sources of supply or the location of electrical conductors. • Lack of clear safe access to locate electric cables (other hazards may be present such as exposed conductors). • Damage to conductors in metallic conduits where earthing continuity of the conduit has not been maintained. • Equipment located in hazardous areas, which includes bolt-on or screw-on covers, can be dangerous if opened without obtaining specialist advice. • Working alone on energised equipment. • Drilling into switchboards/electrical enclosures. • Contact with cables in walls, floors or roof spaces. • Contact with cables during excavation work or cutting/drilling concrete. • Exposure to asbestos material/switchboards. • Variable frequency devices. • Multiple circuits located within the one conduit. • Use of conductive/flammable cleaning solvents creating an explosive atmosphere.
Testing and fault finding low-voltage equipment and installations	• Risks arise as it is difficult to find faults or malfunctions in electrical equipment when the circuits are not energised or when the equipment is not operating, especially if feedback circuits or sensors are involved. Risks can include: • Electrical drawings/tables not reflecting 'as installed' installations • Exposed energised terminals or conductors • Terminals or conductors being energised under different conditions of operation of the equipment • Loose or disconnected test leads or wiring becoming energised • Test equipment and leads bringing electrical hazards closer to the worker • Test equipment inappropriate for the task (particularly test probes) • Inadequate test points • Inadvertent attempts to start machinery by other persons

Activity	Risks
	• Incorrect or poorly maintained testing instruments • Inadequate knowledge of equipment or causes of faults • Lack of information about circuits or equipment • Equipment located in hazardous areas, which includes bolt-on or screw-on covers, can be dangerous if opened without obtaining specialist advice • Testing or fault finding alone on energised equipment • Testing or fault finding in cramped or restricted work situations • Rotating or moving machinery (crush hazards) • Overriding of interlocks or forcing of control equipment • Re-setting of protective devices in energised switchboards • Electrical installations where unauthorised electrical work has been undertaken.
High fault currents – working, testing or fault finding energised	• When working, testing or fault finding on energised electrical equipment, a fault current of up to 20 times the rated current of the supply transformer can flow for short duration during fault conditions. • Arcs can have the energy to cause an explosion and/or melt metallic switchboard cubicles and equipment. Arcs may cause severe burns to the skin and flash burns to the face and eyes. Inhaled hot gases and molten particles can cause serious internal burns to the throat and lungs. Injury can also occur through the impact from flying debris and dislodged components. Circuit protection devices may not operate in such circumstances.
Testing, fault finding or working on or near low voltage equipment	• Voltages between phases and between phases and neutral. • Voltages between phases and earth. • Voltages across open switch contacts, for example voltage across a light switch on an incandescent lighting circuit or the voltage across a bus tie where one side is de-energised. • Voltages on disconnected conductors (particularly neutrals). • Voltages from sources near the work being performed, for example: o Working on a remote area power supply where both A.C. and D.C. voltages may be present. o Repairing lights on a shop fascia when overhead power lines are nearby. o Working on transducer circuits when other A.C. and D.C. circuits are present. o Working on a power system with multiple circuits that may be of multiple potentials. • Voltages on the circuit being worked on from other sources including: o illegal connections or reconnections o Uninterruptible Power Supplies (UPS) and backup supplies. o Motor generators or alternators. o D.C. on A.C. circuits or A.C. on D.C. circuits. o Harmonics, for example 3rd harmonic 150 Hz in neutrals and earths where there is a large fluorescent light load and switch mode power supplies.

Activity	Risks
	o Back Electro Magnetic Forces (EMF) from collapsing magnetic fields or rotating machinery. o Solar panels or photovoltaic. • Voltages across undischarged capacitors. • Voltages across the secondary terminals of transformers, including current transformers. • Voltages caused by static electricity, leakage or discharge, or lightning. • Voltages between energised exposed conductors and the surrounding environment (including metalwork, damp situations, other conductive surfaces and persons nearby). • Voltages between parts, or open-circuited parts of one earth system, or voltages between different earthing systems. • Induced voltages from sources other than the circuit being worked on, for example nearby circuits or radio frequency transmitters. • Multiple supply sources (more than one source of supply or energised circuit may be available on the premises), for example 'essential services' on a switchboard, emergency backup generators or UPS. • Electrical testing or operating equipment with open enclosures in hazardous areas (as defined by AS/NZS 3000:2007). • The potential (voltage) between parts of the earth in Multiple Earthed Neutral (MEN) systems can change, sometimes causing electric shocks. The changing earth potential can be due to a number of causes including a high impedance return path to the low-voltage distribution neutral, faults on other parts of the power system or lightning strikes. • Incorrect wiring connections, for example transposing active and neutral, commonly referred to as incorrect polarity. • Switched off circuits becoming energised. • Faulty equipment, for example the frame of faulty equipment may become energised. • Step and touch potentials and transferred earth potentials. Transferred earth potentials often result from system faults. • Hygroscopic materials that become conductive, for example fertiliser dust.
Other Hazards	• Working at heights and danger of falling objects. • Removal of cover plates near energised equipment, for example escutcheon plates. • Confined spaces (where there may be a hazardous atmosphere). • Inadequate light to work safely. • Lack of ventilation leading to uncomfortable, hot and humid working conditions. • Excessive worker fatigue, due to pressure of deadlines or other factors. • Obstacles to getting the equipment switched off. • Using a gas flame near exposed electrical conductors (a flame is a conductor). • Using conductive or flammable cleaning solvents. • Temperature rise as a result of combustion. • Cramped working conditions, including cable trenches and cable pits. • Explosive atmospheres. • Use of conductive tools and equipment, for example metallic tape measures and rulers.

Activity	Risks
	• Electric tools and equipment (for example, hand lamps, drills, saws, torches and test instruments). • Personal effects (for example, rings, jewellery, watches, pens, cigarette lighters, matches, hearing aids, mobile phones and pagers, transistor radios and similar). • General work activities (for example, welding, cutting, brazing, using hand saws, drilling of all types, hammering and chiselling). • Hot metal surfaces due to drilling, grinding or welding. • Excavation associated with electrical work. • Molten metal from arcs. • Asbestos material/switchboards. • Polychlorinated biphenyl (PCB) in transformers, capacitors and electric motors.

APPENDIX D – PREVENTATIVE ACTIONS CHECKLIST:

This checklist will help you to identify hazards associated with electrical work and develop safe work methods.

If you answer 'NO' to any question you must take action to put appropriate risk control measures in place.

PART 1: INITIAL ASSESSMENT	Y	N
Can the work be undertaken while the electrical equipment is de-energised?		
If **Yes**, proceed to Part 2. If **No**, is it: • necessary in the interests of health and safety that the electrical work is carried out on the equipment while the equipment is energised? **OR** • necessary that the electrical equipment to be worked on is energised in order for the work to be carried out properly? **OR** • is it necessary for the purposes of electrical testing required under Regulation 155? **OR** • are there no reasonable alternative means of carrying out the work? If your answer to any of these is 'yes' proceed to Part 3 after considering whether part of the installation or equipment may be de-energised while the work is carried out. If you cannot answer 'yes' to any of these proceed to Part 2—you must work de-energised.		
PART 2: WORK DE-ENERGISED	**Y**	**N**
• Do you have approved test instruments suitable for the task?		
• Have you checked that the test instruments are functioning correctly?		
• Have you isolated the supply e.g. by switching off?		

• Have you conclusively tested that the equipment is de-energised? You must carry out the electrical work in accordance with any safe work method statement that must be prepared for the work. Proceed to Part 4.		
PART 3: WORK ON OR NEAR ENERGISED EQUIPMENT	**Y**	**N**
Has a risk assessment been conducted by a competent person which identifies all electrical hazards and non-electrical hazards, both actual and potential?		
Is the work area clear of obstructions to allow for easy access?		
Is the isolation point clearly marked or labelled and capable of being operated quickly?		
Has the person with management or control of the workplace been consulted about the proposed electrical work?		
Do you have a safe work method statement for the task at hand? This should state the control measures required to eliminate or minimise the risks.		
Are you trained, competent and confident in applying the particular procedures or techniques that are required for the task?		
Have you checked to ensure that your tools and accessories are insulated and have been inspected and maintained to ensure they are serviceable?		
Is your test equipment appropriate to the task and functioning correctly?		
Are you wearing the appropriate clothing and associated PPE for the task e.g. safety helmet and boots, insulating gloves?		
Do you have the appropriate insulating mats and sheeting?		
Is a safety observer present? Note: a safety observer is not required for electrical work if it only involves testing and the risk assessment shows that there is no serious risk associated with the work.		
Are the necessary first aid facilities provided and accessible and are unauthorised persons prevented from entering the work area?		
REMEMBER: • Do the work very carefully. • Follow the safe work procedures. • Assume all exposed conductors are energised. • Be aware of the voltage to earth of all exposed conductors.		

PART 4: AFTER COMPLETING THE WORK	Y	N
Have the installations/circuits/equipment been restored to a safe and operable condition?		
Have all tags and locking-off devices been removed?		

LIST OF AMENDMENTS

Date	Page Number	Amendments
11 March 2015	Front cover	Publication date changed from first published date of July 2012 to republished date of March 2015.
11 March 2015	28	Section 5.1 – Two references changed from 'safe work procedure' to 'safe work principle'.
3 February 2016	Front Cover	Publication date changed from March 2015 to February 2016 consistent with the PDF version of this Code.

#Excavation

EXCAVATION WORK

Code of Practice - MARCH 2015

- This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.
- A copy of this code is included for download in CCCVaT's website along with other codes referred to in this Workplace Health and Safety Manual which have not be published in this document.
- The reason this Code of Practice was not published in this document was due to its worth to Churches. That is not to imply that it is not relevant and should the Church intend to excavate, then this code of practice should be referred to before embarking upon this exercise.

#Falls

MANAGING THE RISK OF FALLS AT WORKPLACES

CODE OF PRACTICE - MARCH 2015

TABLE OF CONTENTS

FOREWORD:

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

SCOPE AND APPLICATION:

This Code applies to all workplaces covered by the WHS Act and Regulations where there is a risk of a fall by a person from one level to another that is reasonably likely to cause injury.

This Code provides practical guidance to persons conducting a business or undertaking, including those persons who design, construct, import, supply or install plant or structures, on how to manage health and safety risks arising from falls. It includes information on a range of control measures to eliminate or minimise the risks.

HOW TO USE THIS CODE OF PRACTICE:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to sections of the WHS Act and Regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION:

Falls are a major cause of death and serious injury in Australian workplaces. Fall hazards are found in many workplaces where work is carried out at height, for example stacking shelves, working on a roof, unloading a large truck or accessing silos. Falls can also occur at ground level into holes, for example trenches or service pits.

1.1 WHO HAS HEALTH AND SAFETY DUTIES IN RELATION TO FALLS?

A person conducting a business or undertaking has the primary duty under the WHS Act to ensure, as far as reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

A person conducting a business or undertaking has more specific obligations under the WHS Regulations to manage the risk of a fall by a person from one level to another, including requirements to:

- Ensure, so far as is reasonably practicable, that any work involving the risk of a fall is carried out on the ground or on a solid construction.
- Provide safe means of access to and exit from the workplace.

  Minimise the risk of falls so far as is reasonably practicable by providing a fall prevention device, work positioning system or a fall arrest system.

Designers, manufacturers, suppliers, importers and installers of plant or structures that could be used for work must ensure, so far as is reasonably practicable, that the plant or structure is without risks to health and safety. Designers of plant or structures have an important role in eliminating or minimising the risks of falls in the design stage (see Chapter 10 of this Code).

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks of falls from one level to another that are likely to cause injury.

Workers have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction given by the person conducting the business or undertaking.

1.2 THE MEANING OF KEY TERMS:

Fall means a fall by a person from one level to another.

Risk of a fall means a circumstance that exposes a worker while at work, or other person while at or in the vicinity of a workplace, to a risk of a fall that is reasonably likely to cause injury to the worker or other person. This includes circumstances in which the worker or other person is:

- In or on plant or a structure that is at an elevated level.
- In or on plant that is being used to gain access to an elevated level.
- In the vicinity of an opening through which a person could fall.
- In the vicinity of an edge over which a person could fall.
- On or in the vicinity of a surface through which a person could fall.
- On or near the vicinity of a slippery, sloping or unstable surface.

Risk control means taking action to eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimising the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard.

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

Further definitions relating to fall control measures are listed in Appendix A.

1.3 WHAT IS REQUIRED TO MANAGE THE RISK OF FALLS?

Regulation 34-38: In order to manage risk under the WHS Regulations, a duty holder must:

- identify reasonably foreseeable hazards that could give rise to the risk
- eliminate the risk so far as is reasonably practicable
- if it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of control
- maintain the implemented control measure so that it remains effective
- review, and if necessary revise, risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

This Code provides guidance on how to manage the risks of persons falling from one level to another by following a systematic process that involves:

- Identifying hazards that may cause injury.
- If necessary, assessing the risks associated with these hazards.
- Implementing risk control measures.
- Reviewing risk control measures to ensure they are effective.

Guidance on the general risk management process is available in the Code of Practice: How to Manage Work Health and Safety Risks.

Consulting workers:

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Section 47: The WHS Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

You must consult your workers and their health and safety representatives at every step of the risk management process. By drawing on their experience, knowledge and ideas, you are more likely to identify fall hazards and develop effective control measures.

Consulting, co-operating and coordinating activities with other duty holders:

Section 46: The WHS Act requires that you consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved

in the same activities or who share the same workplace. In these situations, you should find out who is doing what and work together with other duty holders in a co-operative and co-ordinated way so that all risks are eliminated or minimised, so far as is reasonably practicable.

For example, the owner of a transport company with large trucks should consult the goods suppliers as well as the businesses having the goods delivered about how the risk of falls will be controlled during loading and unloading. This may include checking whether suitable equipment is available at each site so that workers do not have to climb on top of loads on the truck and be at risk of falling.

Further guidance is available in the Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination.

2. MANAGING THE RISK OF FALLS:

2.1 HOW TO IDENTIFY FALL HAZARDS:

You must identify all locations and tasks that could cause injury due to a fall. This includes access to the areas where work is to be carried out. Tasks that need particular attention are those carried out:

- On any structure or plant being constructed or installed, demolished or dismantled, inspected, tested, repaired or cleaned.
- On a fragile surface (for example, cement sheeting roofs, rusty metal roofs, fibreglass sheeting roofs and skylights).
- On a potentially unstable surface (for example, areas where there is potential for ground collapse).
- Using equipment to work at the elevated level (for example, when using elevating work platforms or portable ladders).
- On a sloping or slippery surface where it is difficult for people to maintain their balance (for example, on glazed tiles).
- Near an unprotected open edge (for example, near incomplete stairwells).
- Near a hole, shaft or pit into which a worker could fall (for example, trenches, lift shafts or service pits).

Inspect the workplace

Walk around the workplace and talk to your workers to find out where work is carried out that could result in falls. A checklist may be useful in this process. Key things to look for include:

- surfaces:
    - the stability, fragility or brittleness;
    - the potential to slip, for example where surfaces are wet, polished or glazed;
    - the safe movement of workers where surfaces change;
    - the strength or capability to support loads; and
    - the slope of work surfaces, for example, where they exceed 7 degrees.
- Levels—where levels change and workers may be exposed to a fall from one level to another.
- Structures—the stability of temporary or permanent structures.
- The ground—the evenness and stability of the ground for safe support of scaffolding or a work platform.
- The working area—whether it is crowded or cluttered.
- Entry and exit from the working area.

- Edges—protection for open edges of floors, working platforms, walkways, walls or roofs.
- Holes, openings or excavations—which will require guarding.
- Hand grip—places where hand grip may be lost.

In some situations, advice may be needed from technical specialists, such as structural engineers, to check the stability of structures or load bearing capacity.

Review available information, including incident records

You should check your records of previous injuries and 'near miss' incidents related to falls.

Information and advice about fall hazards and risks relevant to particular industries and work activities is also available from regulators, industry associations, unions, technical specialists and safety consultants.

2.2 HOW TO ASSESS THE RISK:

A risk assessment will help you determine:

- What could happen if a fall did occur and how likely it is to happen.
- How severe a risk is.
- Whether any existing control measures are effective.
- What action you should take to control the risk.
- How urgently the action needs to be taken.

A risk assessment is unnecessary if you already know the risk and how to control it.

When assessing the risks arising from each fall hazard, the following matters should be considered:

- The design and layout of elevated work areas, including the distance of a potential fall.
- The number and movement of all people at the workplace.
- The proximity of workers to unsafe areas where loads are placed on elevated working areas (for example, loading docks) and where work is to be carried out above people and there is a risk of falling objects.
- The adequacy of inspection and maintenance of plant and equipment (for example, scaffolding).
- The adequacy of lighting for clear vision.
- Weather conditions—the presence of rain, wind, extreme heat or cold can cause slippery or unstable conditions.
- The suitability of footwear and clothing for the conditions.
- The suitability and condition of ladders, including where and how they are being used.
- The adequacy of current knowledge and training to perform the task safely (for example, young, new or inexperienced workers may be unfamiliar with a task).
- The adequacy of procedures for all potential emergency situations.

Generic risk assessment

If you are responsible for a number of different work areas or workplaces and the fall hazards are the same, you may perform a single (or generic) risk assessment. However, you should carry out a risk assessment on individual fall hazards if there is any likelihood that a person may be exposed to greater, additional or different risks.

2.3 HOW TO CONTROL THE RISK:

There are a number of ways to control the risks of falls. Some control measures are more effective than others. Control measures can be ranked from the highest level of protection and reliability to the lowest. This ranking is known as the

hierarchy of control. The WHS Regulations require duty holders to work through this hierarchy to choose the control that most effectively eliminates or minimises the risk in the circumstances. This may involve a single control measure or a combination of two or more different controls.

In managing the risks of falls, the WHS Regulations require the following specific control measures to be implemented, where it is reasonably practicable to do so:

1. Can the need to work at height be avoided to eliminate the risk of a fall?

- Carry out any work that involves the risk of a fall on the ground.

2. Can the fall be prevented by working on solid construction?

- A building or structure that is used as an existing place of work and includes safe access and egress from which there is no risk of a fall from one level to another, for example properly constructed stairs with fixed handrails, flat roofs with a parapet or permanently installed guard rails around the edges.

It is usually not necessary to implement additional control measures to manage the risk of falls for workplaces in buildings that already comply with the requirements of the National Construction Code of Australia, for example in relation to stairs, mezzanines and balconies.

3. Can the risk of a fall be minimised by providing and maintaining a safe system of work, including:

- Providing a fall prevention device (for example, installing guard rails) if it is reasonably practicable to do so.
- Providing a work positioning system (for example, an industrial rope access system) if it is not reasonably practicable to provide a fall prevention device.
- Providing a fall-arrest system, so far as is reasonably practicable, if it is not reasonably practicable to provide a fall prevention device or a work positioning system.

In some cases a combination of control measures may be necessary, for example using a safety harness while working from an elevating work platform.

Control measures are needed where there is a risk of injury irrespective of fall height. For low falls, you should assess the risk and provide reasonably practicable measures that reflect the risk. For example, there may be a risk of injury to workers standing on a narrow 1.7 metre high platform next to a production line where they have to work with their back to the open edge or where there is a risk of falling onto an uneven surface with sharp edges or protrusions. In this situation it may be reasonably practicable to install a guard rail along the edge of the platform.

Sometimes it may not be reasonably practicable to provide guard rails, for example at the edges of railway platforms or vehicle inspection pits. Other safe systems of work to provide adequate protection should be implemented, for example brightly painted lines to designate edges.

Work of long duration and higher frequency will usually require control measures higher up the hierarchy to provide adequate protection, for example using a mobile scaffold instead of a ladder.

You should also ensure that the control measures you select do not create new hazards, for example electrical risks from contact with overhead power lines or crushing and entanglement from plant such as elevating work platforms.

Implementing and maintaining control measures:

Regulation 37 You must ensure that the control measures you implement remain effective. This includes checking that the control measures are fit for purpose; suitable for the nature and duration of the work; are installed and used correctly.

To allow the chosen control measures to operate effectively, you should:

- **Develop work procedures,** on how to correctly install, use and maintain the control measure. The procedures should include a planned program of inspections and maintenance for the control measures. The inspection regime should include details of:
    - the equipment to be inspected (including its unique identification);
    - the frequency and type of inspection (pre-use checks, detailed inspections);
    - action to be taken on finding defective equipment;
    - means of recording the inspections;
    - training of users; and
    - the system of monitoring the inspection regime to verify that inspections are carried out appropriately.

The manufacturer and/or supplier of the equipment should be consulted for any product specific requirements. If any signs of wear or weakness are found during the inspection, the components or means of attachment must be withdrawn from use until they are replaced with properly functioning components.

- **Provide information**, *training and instruction* to workers, including procedures for emergency and rescue. You should also cover:
    - the type of control measures used to prevent falls;
    - procedures for reporting fall hazards and incidents;
    - the correct selection, fitting, use, care, inspection, maintenance and storage of fall-arrest and restraint equipment;
    - the correct use of tools and equipment used in the work (for example, using a tool belt instead of carrying tools); and
    - control measures for other potential hazards (for example, electrical hazards).
- **Provide supervision** by ensuring that workers exposed to a risk of a fall are adequately supervised by a competent person, especially if they are undergoing training or are unfamiliar with the working environment. Check that:
    - only workers who have received training and instruction in relation to the system of work are authorised to carry out the work; and
    - workers use the fall control measure in the correct manner.

2.4 HOW TO REVIEW CONTROL MEASURES:

The control measures that are put in place to prevent falls must be reviewed, and if necessary revised, to make sure they work as planned and to maintain an environment that is without risks to health and safety.

Regulation 38: A person conducting a business or undertaking must review and as necessary revise fall control measures:

- when the control measure does not control the risk so far as is reasonably practicable.
- before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
- if a new hazard or risk is identified.
- if the results of consultation indicate that a review is necessary.

- If a health and safety representative requests a review.

Control measures may be reviewed using the same methods as the initial hazard identification step.

Consult your workers and their health and safety representatives and consider the following:

- Are the control measures working effectively in both their design and operation?
- Are all fall hazards being identified?
- Are workers using the control measures in accordance with the instruction and training that has been provided?

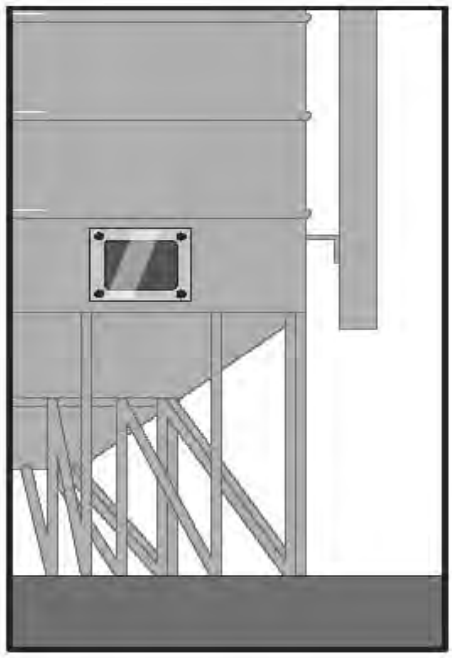
3. WORK ON THE GROUND OR ON A SOLID CONSTRUCTION:

3.1 WORK ON THE GROUND:

Eliminating the need to work at height is the most effective way of protecting workers from the risk of falls. Examples of eliminating the risk by working on the ground include:

- Prefabricating roofs at ground level.
- Prefabricating wall frames horizontally, then standing them up.
- Using mechanical tarp spreaders to cover loads on trucks from the ground.
- Fitting outlets, inlets and controls of large tanks and silos near the ground (see Figure 1).
- Reducing shelving heights so that workers can access items from ground level.
- Using tools with extendable handles, such as paint rollers (the risk of musculoskeletal disorders will need to be considered when deciding whether to use such tools).
- Installing windows that pivot to enable cleaning from a safe position inside a building.
- Lowering a concert hall chandelier to repair it.

Figure 1: A silo showing sight glass and ground delivery tube



3.2 WORK ON A SOLID CONSTRUCTION:

Working on a solid construction provides an environment where the likelihood of a fall may be eliminated. 'Solid construction' means an area that:

- Is structurally capable of supporting workers, material and any other loads applied to it.
- Is provided with barriers around its perimeter and around any openings from or through which a person could fall.
- Has an even, accessible surface and gradient.
- Has a safe means of entry and exit.

Structural strength

Different types of work involve different loads on the supporting surface. The surface and its supports must be able to safely carry the expected loads, including workers, materials, tools and equipment. When in doubt, have a structural engineer determine the safe load capacity before use.

Barriers

Barriers (or edge protection) to prevent a person falling over edges and into holes should be provided on relevant parts of a solid construction. These include:

- The perimeters of buildings or other structures.
- Mezzanine floors (see Figure 2).
- Openings in floors.
- The open edge of a stair, landing, platform or shaft opening (see Figure 3).

Figure 2: A barrier on a mezzanine floor

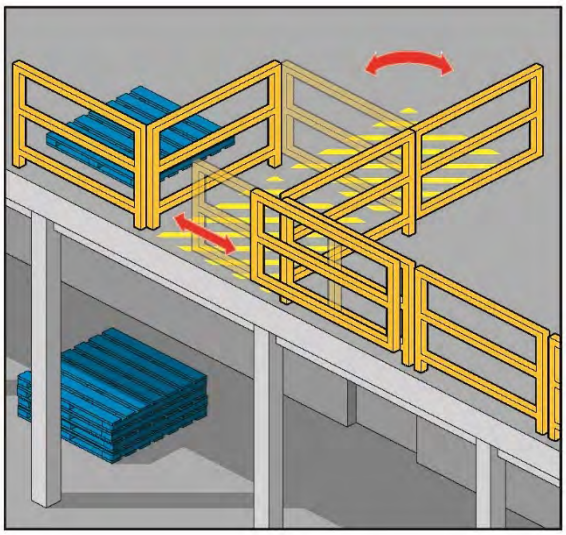
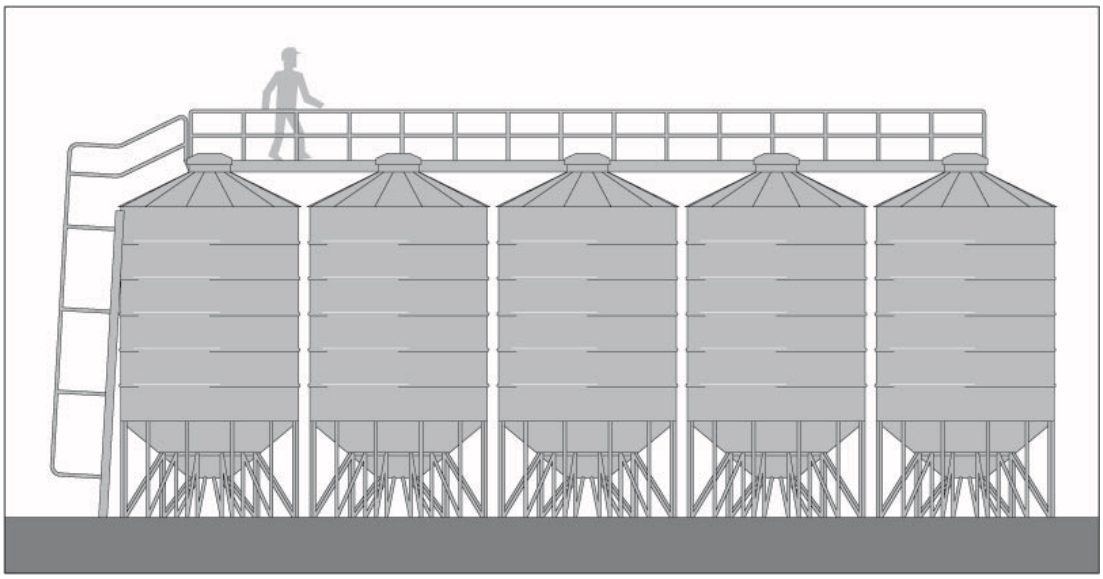


Figure 3: A platform with guard rails installed above silos



The barrier should be designed and constructed to withstand the force of someone falling against it.

Edge protection should consist of guard rails, solid balustrades or other structural components, for example wire mesh supported by posts and provided with a reinforced top edge. The top of the guard rail or component should be between 900 mm and 1100 mm above the working surface. If a guard rail system is used, it should also have mid-rails and toe boards or wire mesh infill panels.

If access is required to equipment (for example, a hoist) it should be protected with gates, safety chains or other means to prevent a person falling.

Protection of openings and holes:

Holes, penetrations and openings through which a person could fall should be made safe immediately after being formed.

If a cover is used as a control measure, it must be made of a material that is strong enough to prevent persons or objects falling through and must be securely fixed to prevent any dislodgement or accidental removal.

Figure 4: 4 mm mesh embedded in the concrete floor. The hole should also be covered to prevent things falling through.

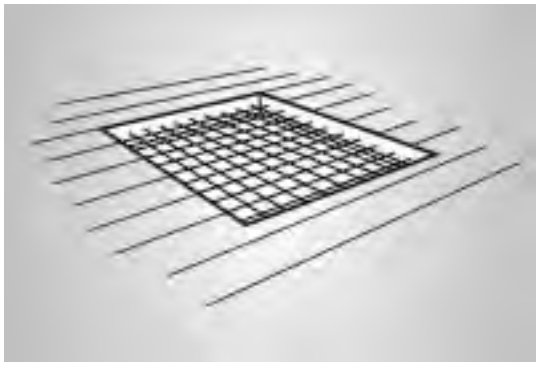


Figure 5: Example of the type of danger sign to be affixed to the hole cover.

Surface and gradient

Surfaces of solid construction should be non-slip, free from trip hazards and should generally not exceed 7 degrees (1 in 8 gradient). Cleated surfaces, which provide greater slip-resistance, should not be steeper than 20 degrees (1 in 3 gradient).

If grid mesh or checker plate flooring is used for walkways and working platforms, ensure that:

- Flooring panels are securely fixed and assembled in accordance with manufacturer's specifications.
- Where possible, they are fitted to the structure prior to it being lifted into permanent position
- Each panel is fixed securely before the next panel is placed in position.
- During installation, this type of flooring is secured by tack welding, panel grips or other means to prevent movement before being fixed permanently.
- If panels of grid mesh or checker plate flooring are removed, edge protection is provided and the gaps left due to removed panels are protected.

Entry and exit

The solid construction must have a safe means for people to get to, from and move around the work area, for example permanently installed platforms, ramps, stairways and fixed ladders.

Further guidance is available in *AS 1657 Fixed platforms, walkways, stairways and ladders – Design, construction and installation*.

Safety considerations include:

- Exposure of access systems to the weather (for example, rain can make surfaces slippery and strong winds can cause loss of hand grip).
- The provision of adequate natural or artificial lighting to all access ways.
- The clearance of obstructions so that persons are able to move easily to and from the workplace.

Portable ladders should only be used where the use of safer systems is not reasonably practicable.

4. FALL PREVENTION DEVICES:

A fall prevention device is any equipment that is designed to prevent a fall for temporary work at heights, and once in place does not require any further adjustment by workers using the device.

4.1 TEMPORARY WORK PLATFORMS:

A ‘temporary work platform’ is a working platform, other than a permanently installed fixed platform, used to provide a working area for the duration of the job. The design of the platform prevents workers from falling. Temporary work platforms include scaffolds, elevating work platforms, mast climbers, workboxes, building maintenance units, portable or mobile fabricated platforms or any other platform that provides a working area and is designed to prevent a fall.

Scaffolding:

Scaffolding can be very effective protection in preventing falls; however, there are specific requirements that apply to some types of scaffold under the WHS Regulations.

Regulation 225: A person with management or control of a scaffold must not allow the use of a scaffold from which a person or object could fall more than four metres unless a competent person provides written confirmation that the scaffold has been completed. The person must also ensure that:

- the scaffold and its supporting structure is inspected by a competent person before use, after any incident that could affect its stability (such as a severe storm), after any repairs, and at least every 30 days.
- unauthorised access is prevented on scaffolding that is incomplete and left unattended (for example, by attaching danger tags and warning signs at appropriate locations).

Scaffolding work platforms are generally rated as light, medium or heavy duty. Safety considerations include:

- Scaffolding conforms to AS/NZS 4576 Guidelines for scaffolding and the AS/NZS 1576 Scaffolding series
- All scaffolding is erected, altered and dismantled by competent persons. Any scaffold from which a person or object could fall more than four metres must be erected, altered and dismantled by or under the direct supervision of a licensed scaffolder.
- Prefabricated scaffolds are of the same type and not mixed components, unless the mixing of components has been approved by the manufacturer
- Safe access to and egress from the scaffold is provided
- Edge protection (hand rails, mid-rails and toe boards) is provided at every open edge of a work platform (see Figure 5).

Information, instruction and training for workers using scaffolds

Where work is performed from a scaffold, you must ensure that the relevant workers understand:

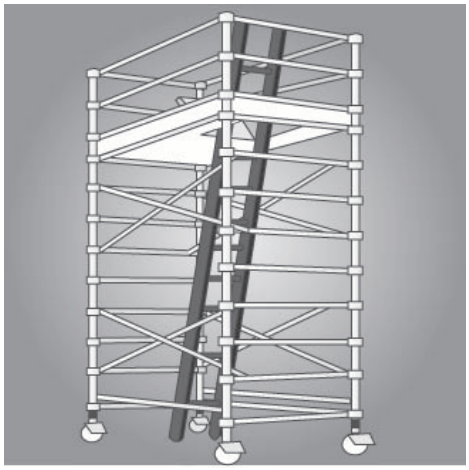
- What loads the scaffold can safely take.
- Not to make any unauthorised alterations to the scaffold (such as removing guard rails, planks, ties, toe boards and braces).
- That working platforms need to be kept clear of debris and obstructions along their length.
- That incomplete or defective scaffolds must never be accessed.

Where work is performed using mobile scaffolds, workers should be trained to ensure the scaffold:

- Remains level and plumb at all times.
- Is kept well clear of powerlines, open floor edges and penetrations.
- Is not accessed until the castors are locked to prevent movement.
- Is never moved while anyone is on it.
- Is only accessed using internal ladders (see Figure 7).

Figure 6: Perimeter scaffold with a fully decked working platform, guardrails and toeboards.

Figure 7: Mobile scaffold with an access ladder and trapdoor to provide the largest possible hazard-free working platform.



Light duty suspended scaffold

A suspended scaffold incorporates a suspended platform that is capable of being raised or lowered when in use (see Figure 8). Common types of suspended scaffolds include:

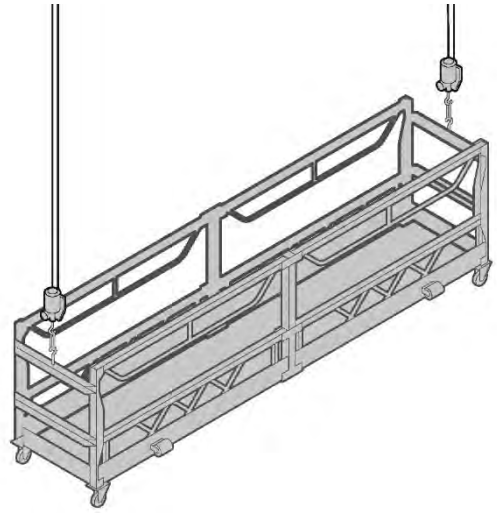
- Swing stages which have cradles supported by a single row of suspension ropes.
- Double rope scaffolds, with cradles supported by two rows of suspension ropes.
- Work cages which are small cradles supported by one suspension rope only.
- False cars, which are specialised forms of suspended scaffolding and are often used in the construction of lifts before lift cars are installed.

There are specific safety considerations for swing stages, including that:

- The working load and specifications are in accordance with AS 1576.4 Scaffolding – Suspended Scaffolding.
- Persons operating light duty suspended stages are trained in safe operation.
- Persons installing or servicing a light duty suspended stage hold a licence for advanced rigging or advanced scaffolding.
- Where the swing stage is suspended by two wire ropes to each winch, a safety harness and restraint lanyard is attached to a suitable anchor point of the swing stage.

Further guidance on the safe design, erection and use of scaffolding, including suspended scaffolding, is available in the Scaffolding Code of Practice *[under development].*

Figure 8: Example of a light duty suspended scaffold with two wire ropes to each winch. The platform must remain horizontal when moving it up or down.



Elevating work platforms

Elevating Work Platforms (EWPs) include scissor lifts, cherry pickers, boom lifts and travel towers. There are battery powered and internal combustion engine types. Some are designed for hard flat surfaces only, while others are designed to be operated on rough terrain.

Safety considerations include that:

- Workers operating the platform are trained and instructed in safe operating procedures for the particular brand and type of equipment, as well as the safe use of fall-arrest equipment and emergency rescue procedures.
- The platforms are only used as working platforms and not as a means of entering and exiting a work area unless the conditions set out in **AS 2550.10** Cranes, hoists and winches - Safe use - Mobile elevating work platforms are met.
- Unless designed for rough terrain, the platforms are used only on a solid level surface.
- The surface area is checked to make sure that there are no penetrations or obstructions that could cause uncontrolled movement or overturning of the platform.
- The manufacturer's or supplier's instructions are consulted for information on safe operation.
- Persons working in travel towers, boom lifts or cherry pickers wear a properly anchored safety harness.
- Workers are licensed when operating boom-type elevating work platforms with a boom length of 11 metres or more.

Figure 9: An example of a boom-type elevating work platform. The safety harness and lanyard assembly are not shown for purposes of clarity. The lanyard should be as short as possible and should be attached directly to the designated anchor point on the EWP, not to the handrail.

Figure 10: An example of a scissor-lift elevating work platform.

Mast climbing work platforms

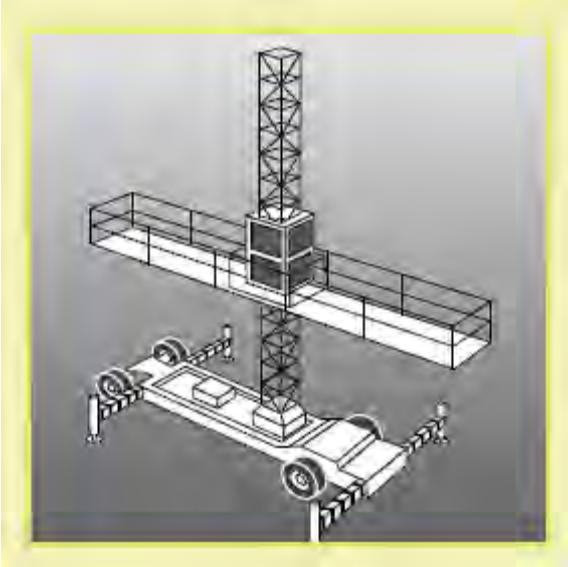
Mast climbing work platforms are hoists with a working platform that is used to raise workers and material to a temporary working position. They use a drive system mounted on an extendable mast, which may need to be tied to a building under circumstances prescribed by the manufacturer.

Mast climbing work platforms can be set up in either single-mast or multi-mast configurations. They are generally not suitable for use if the profile of a structure changes at different elevations (for example, if the upper floors of a building 'step' back or balconies protrude from the building).

The erection and dismantling of mast climbing work platforms must be carried out, or be directly supervised, by a person holding an appropriate rigging or scaffolding licence.

Further information on mast climbing work platforms is provided in AS 2550.16 Cranes—Safe Use—Mast climbing work platforms.

Figure 11: An example of a typical mast climbing work platform.



Workboxes

A workbox is designed to be supported by a crane, hoist, forklift truck or other mechanical device to provide an elevated work area for persons working from the box. It consists of a platform surrounded by an edge protection system and should be designed in accordance with AS 1418.17 Cranes (including hoists and winches) —Design and construction of workboxes.

Where reasonably practicable, other working platforms, such as an elevating working platform or scaffold, should be used as an alternative to the workbox.

The safety requirements and considerations include that:

- The workbox is not suspended over persons.
- The workbox is designed for the task and securely attached to the crane. The workbox, lifting attachments and records should be checked by a competent person before use.
- The workbox is fitted with a suitable anchorage capable of withstanding the fall forces specified in AS/NZS 1891.4 *Industrial fall-arrest systems and devices—Selection, use and maintenance*. Workers must be attached to the anchorage by a lanyard and harness unless the workbox is fully enclosed.
- Workers remain within the workbox while they are being lifted or suspended.
- Workers do not enter or leave the workbox when it is suspended (except in an emergency).
- The crane is fitted with the means to safely lower it in an emergency or a power supply failure
- The crane is suitably stabilised at all times while the workbox is used.
- The crane has ‘drive up’ and ‘drive-down’ controls on both the hoisting and luffing motions and those controls are used. No declutching allowing free fall is to be used while a workbox is in use.
- An effective means of communication between any person in the workbox and the operator is provided.
- The crane is fitted with a safety hook and moused (lashed) accordingly.
- The operator remains at the controls of the crane at all times.

For specifications for the use of crane workboxes refer to AS 2550.1 Cranes, Hoists and Winches—Safe Use—General Requirements.

Forklifts with a work box

A workbox fitted to a forklift must be securely attached to the forklift carriage and engineer-designed and constructed in accordance with AS 2359 Powered Industrial Trucks (see Figure 12).

Safety considerations include that:

- People are not raised on the tynes of forklift trucks or the pallet.
- No other device (for example, ladder or pallets) is used to gain additional height (see Figures 13 and 14)
- The safety gate is self-locking and kept shut when in the elevated position.

Figure 12: An example of an engineer-designed workbox with safety harness and lanyard assembly, correctly positioned on the forklift tynes.

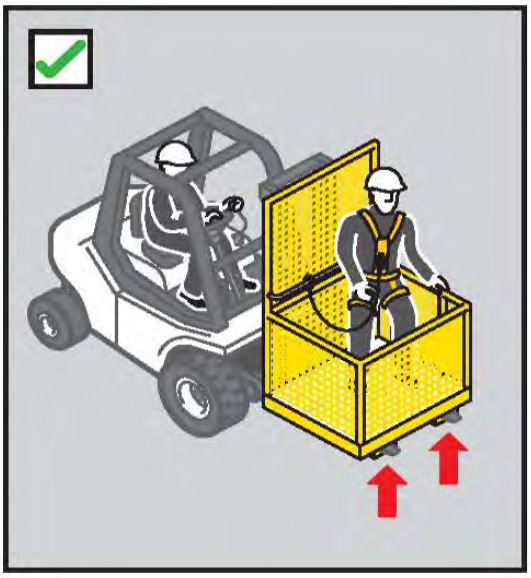
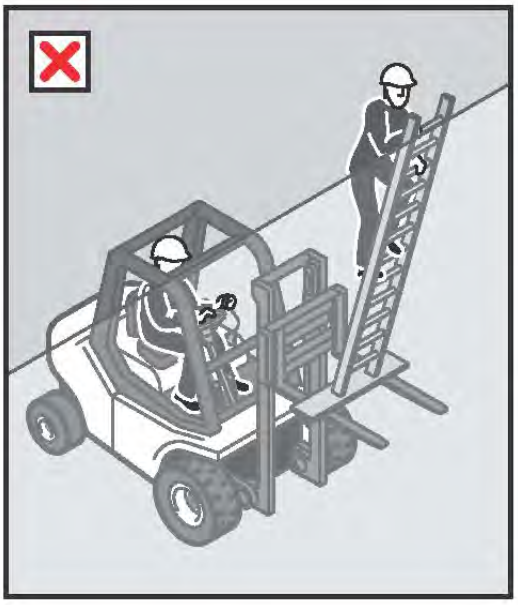


Figure 13: Using a forklift as a working platform or to gain extra height by standing on the tynes or a pallet is an unacceptable practice.

Figure 14: Unacceptable practice with ladder on forklift.

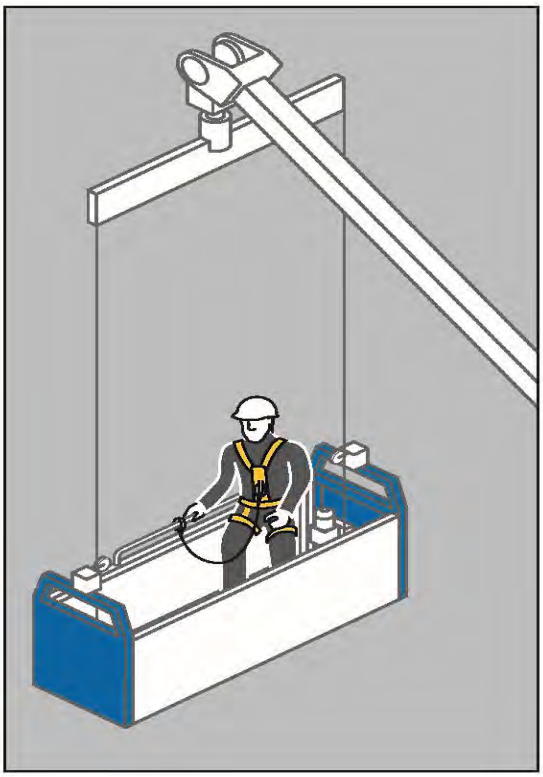


Building maintenance units:

Designers of buildings should consider the methods by which maintenance, repairs or cleaning will be undertaken on buildings or structures.

A building maintenance unit is a power-operated suspended working platform that is fixed permanently to a building or structure. It is used for access for building maintenance or window cleaning (see Figure 15).

Figure 15: An example of a building maintenance unit with safety harness and restraint line.



Safety considerations include that:

- The platform has sufficient, clearly designated safety harness anchorage points designed to withstand the forces caused by a fall of any person located anywhere on the platform.
- The units are designed in accordance with AS 1418.13 Cranes (including Hoists and Winches) —Building Maintenance Units and operated by competent persons in accordance with AS 2550.13 Cranes—Safe Use—Building Maintenance Units.

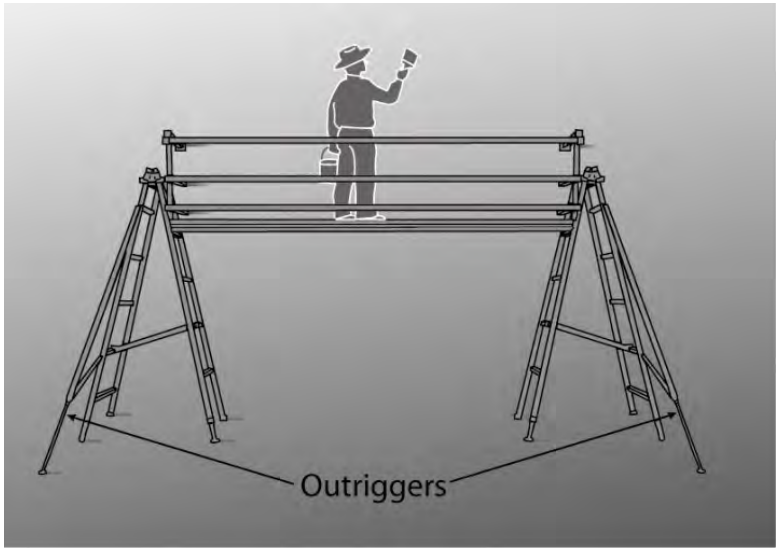
Platforms supported by trestle ladders:

Trestle ladder scaffolds are only suitable for use at heights greater than two metres when guard rails and toe boards are incorporated to prevent people and material falling off the working platform. The system (including planks) should be assembled according to the manufacturer's specifications with the complete set of compatible components.

Some trestle ladder scaffolds include outriggers to increase stability (see Figure 16). Trestle ladder scaffolds are only suited to light duty tasks such as painting and rendering. Work should only be performed between the trestles. The minimum width of the working platform should not be less than 450 mm.

Alternatives to trestle ladders should be considered, such as small scissor lifts, light duty aluminium mobile scaffolds, boom arms and modular scaffolding.

Figure 16: Trestle ladder scaffold with guard rails and outriggers for stability.



4.2 PERIMETER GUARD RAILS:

Guard rails may be used to provide effective fall prevention:

- At the edges of roofs
- At the edges of mezzanine floors, walkways, stairways, ramps and landings.
- On top of plant and structures where access is required (see Figure 17).
- Around openings in floor and roof structures.
- At the edges of shafts, pits and other excavations.

Guard rails should incorporate a top rail 900mm to 1100 mm above the working surface and a mid rail and a toe board.

Before using a guard rail system you should check that it will be adequate for the potential loads. The required load resistance will depend on the momentum of a falling person. For example, the momentum of a person falling from a pitched roof will increase as the pitch (or angle) of the roof increases.

Refer to AS/NZS 4994—Temporary Edge Protection series for further guidance.

Figure 17: Guard rails installed on top of a tanker to enable safe access to tank hatches.

4.3 SAFETY MESH:

Safety mesh is designed to prevent internal falls through a roof. If securely fixed, safety mesh provides fall protection for roof installers and offers long-term protection against falling for maintenance and repair workers.

Safety mesh does not prevent falls from the edge of a roof or through holes in a roof, so it should always be used in conjunction with appropriate edge protection, guard rails or fall-arrest systems.

Safety mesh should comply with AS/NZS 4389 *Safety mesh*, which specifies the minimum requirements for the design, construction, testing and installation of safety mesh for use in domestic, commercial and industrial building applications.

The mesh should be formed from 2 mm diameter wire of not less than 450 MPa tensile strength, welded into a mesh with the longitudinal wires not more than 150 mm apart and the cross wires not more than 300 mm apart.

Safety mesh should be installed in accordance with the manufacturer's instructions by competent persons, who should be protected against the risk of falling by using appropriate control measures such as scaffolding, elevating work platforms or fall-arrest systems.

Particular care is required to ensure that the mesh is securely connected to the structure and the overlap between adjacent sections of mesh is sufficient to generate the necessary strength to resist the force of a person falling onto it. The safety mesh should be covered by the roof cladding as soon as reasonably practicable after it has been installed.

5. WORK POSITIONING SYSTEMS:

A work positioning system involves the use of equipment that enables a person to work supported in a harness in tension in such a way that a fall is prevented.

Work positioning systems require a high level of competency on the part of the user and supervisors to ensure safe use. Users, including supervisors, should undertake a competency based course of training.

5.1 INDUSTRIAL ROPE ACCESS SYSTEMS:

Industrial rope access systems are used for gaining access to and working at a workface, usually by means of vertically suspended ropes. Although fall-arrest components are used in the industrial rope access system, the main purpose of the system is to gain access to a work area rather than to provide backup fall protection (see Figure 18).

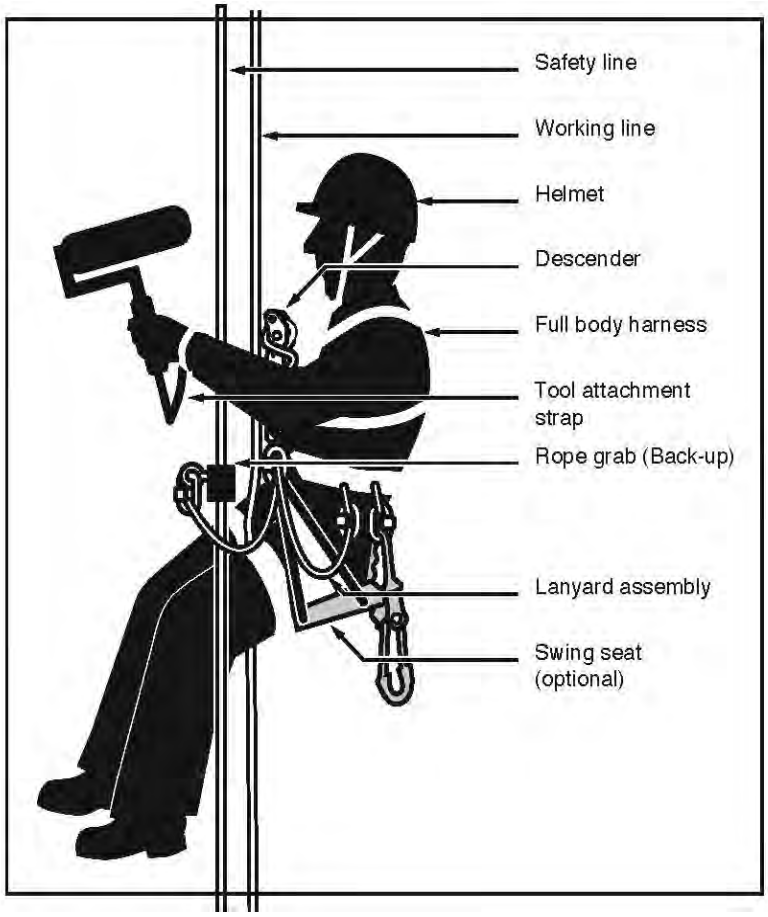
Other methods of accessing a workface should be considered (for example, EWPs or building maintenance units) before rope access systems, as a high level of skill is needed for their safe use.

You should ensure that, where it is necessary for industrial rope access systems to be used:

- Operators are competent in the technique.
- Operators do not work alone, in case they require assistance in an emergency.
- Industrial rope access systems are installed only in a location where it is possible to provide prompt assistance or rescue if required (refer to Chapter 9 of this Code).
- All equipment is checked regularly by a competent person.
- Prior to use, all fixed anchorage points are checked by a competent person before attaching the rope access lines.
- A back up system is used to protect the operator.
- Two independently anchored ropes are used for each person.
- Any person within three metres of an unguarded edge is adequately secured.
- All operators wear a full body harness.
- Supervisors can communicate with workers.
- Where necessary, appropriate personal protective equipment is used, such as helmets, gloves, hearing protection, goggles and masks.
- Barricades and signposts are placed on all access areas below the working area and anchorage locations to exclude and alert the public and tradespeople.

Further guidance on industrial rope access systems is available in AS/NZS 4488 *Industrial rope access systems* series.

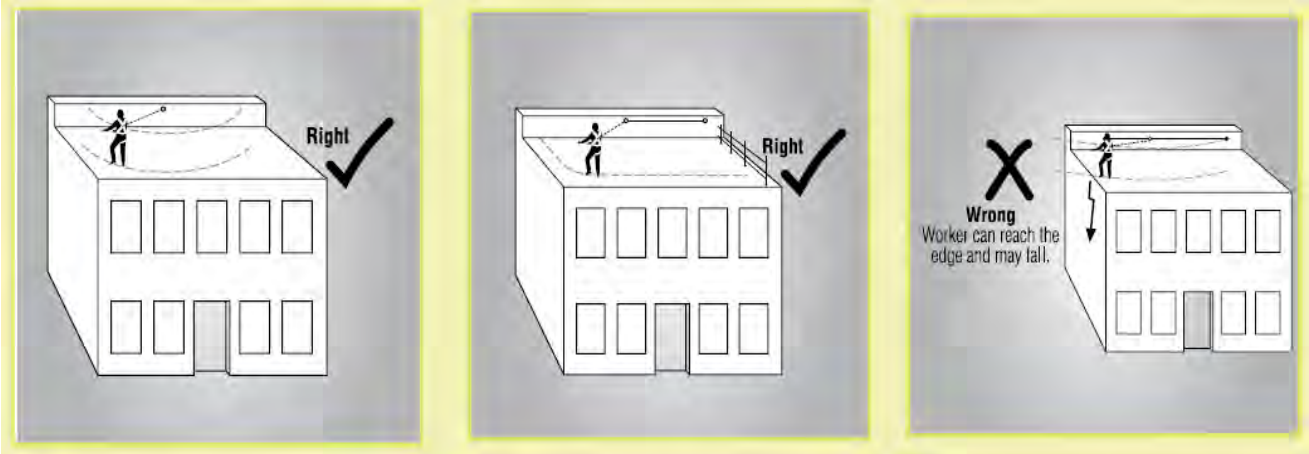
Figure 18: Operator using an ascender in an industrial rope access system.



5.2 RESTRAINT TECHNIQUE:

A restraint technique controls a person's movement by physically preventing the person reaching a position at which there is a risk of a fall. It consists of a harness that is connected by a lanyard to an anchorage or horizontal life line. It must be set up to prevent the wearer from reaching an unprotected edge (see Figure 19).

Figure 19: Restraint technique options.



A restraint technique is suitable for use where:

- The user can maintain secure footing without having to tension the restraint line and without the aid of any other hand hold or lateral support. When deciding whether secure footing can be maintained, consider:
    - o the slope of the surface;
    - o the supporting material type; and
    - o the surface texture of the surface and whether it is likely to be wet, oily or otherwise slippery
- The horizontal life lines are fitted with an industrial shock absorber when required.
- The restraint system conforms with AS/NZS 1891 Industrial fall-arrest systems and devices series.

Restraint techniques should only be used if it is not reasonably practicable to prevent falls by providing a physical barrier (for example, a guard rail). This is because restraint techniques require a high level of user skill to operate safely and also greater supervision.

A restraint system should be installed by a competent person in accordance with the manufacturer's instructions. Restraint anchorage should be designed for fall-arrest loading.

An individual fall-arrest system should be used instead of restraint techniques if any of the following situations apply:

- The user can reach a position where a fall is possible.
- The user has a restraint line that can be adjusted in length so that a free fall position can be reached.
- There is a danger the user may fall through the surface, for example fragile roofing material.
- The slope is over 15 degrees.
- There is any other reasonably likely use or misuse of the system that could lead to a free fall.

6. FALL-ARREST SYSTEMS:

A fall-arrest system is intended to safely stop a worker falling an uncontrolled distance and reduce the impact of the fall. This system must only be used if it is not reasonably practicable to use higher level controls or if higher level controls might not be fully effective in preventing a fall on their own.

All equipment used for fall-arrest should be designed, manufactured, selected and used in compliance with the AS1891 series of standards.

Key safety considerations in using fall arrest systems are:

- The correct selection, installation and use of the equipment
- That the equipment and anchorages are designed, manufactured and installed to be capable of withstanding the force applied to them as a result of a person's fall
- That the system is designed and installed so that the person travels the shortest possible distance before having the fall stopped
- That workers using a fall-arrest system wear adequate head protection to protect them in the event of a fall
- That if the equipment has been used to arrest a fall it is not used again until it has been inspected and certified by a competent person as safe to use.

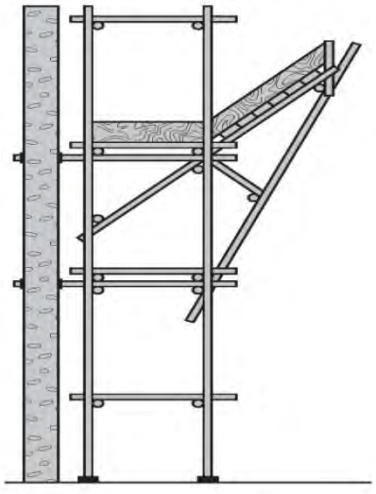
6.1 CATCH PLATFORMS:

A catch platform is a temporary platform located below a work area to catch a worker in the event of a fall. The platform should be of robust construction and designed to withstand the maximum potential impact load. Scaffolding components may be used to construct fixed and mobile catch platforms (see Figure 20).

Catch platforms should:

- Incorporate a fully planked-out deck.
- Be positioned so the deck extends at least two metres beyond all unprotected edges of the work area, except where extended guard railing is fitted to the catch platform.
- Be positioned as close as possible to the underside of the work area—the distance a person could fall before landing on the catch platform should be no more than one metre.
- Always be used with an adequate form of edge protection.

Figure 20: An example of a catch platform below a work area.



6.2 INDUSTRIAL SAFETY NETS:

Safety nets can provide a satisfactory means of protection while allowing workers maximum freedom of movement. They should not be used to enter or exit a work area or as a working platform.

If safety nets are used, you should ensure that:

- Safety nets are securely anchored before any work starts.
- Safety nets are constructed of material strong enough to catch a falling person or thing.
- Safety nets are hung as close as is practicable to the underside of the working area, but no more than two metres below the working area.
- Perimeter safety nets used where there is no edge protection extend at least 2.5 metres beyond the leading edge of the working area.
- The safety net has sufficient tension and clearance to prevent a falling person contacting any surface or structure below the net.
- Material is not allowed to accumulate in suspended safety nets.
- No welding or oxy cutting is performed above safety nets.
- Safety nets are inspected, particularly after installation, relocation or repair.
- Safety nets are stored correctly in dry, shaded areas with good air circulation.

6.3 INDIVIDUAL FALL-ARREST SYSTEMS:

Individual fall-arrest systems consist of some or all of the following components:

- Anchorages.
- Lifelines.
- Inertia reel.
- Lanyard of fixed length.
- Retractable lifelines.
- Rope grabs.
- Wire grabs.
- Rail system.
- Shock absorbers, both personal and industrial.
- Harness.
- Snap hooks (double or triple action to prevent rollout).
- Karabiners (double or triple action to prevent rollout).
- Rescue equipment.

Individual fall-arrest systems rely on workers wearing and using them correctly, and therefore workers who will use such a system must be trained in its safe use. They should only be used where it is not reasonably practicable to use higher level control measures.

Relevant Australian/New Zealand Standards for personal fall-arrest equipment require that they be permanently marked or labelled to indicate their purpose, correct use, limitations and other relevant information aimed at reducing misuse of

the equipment.

Anchorage points:

Each anchorage point should comply with the requirements in AS/NZS 1891:4 Industrial fall-arrest systems and devices – selection, use and maintenance.

All anchorages should be tested and approved by a competent person before use—a visual inspection may not reveal the structural integrity of the anchor point (i.e. the bolt may have failed below the concrete surface).

Each anchorage point should be located so that a lanyard of the system can be attached to it before the person using the system moves into a position where the person could fall.

Inspect the system components

Each component of the system and its attachment to an anchorage must be inspected by a competent person:

- After it is installed but before it is used.
- At regular intervals.
- Immediately after it has been used to arrest a fall.

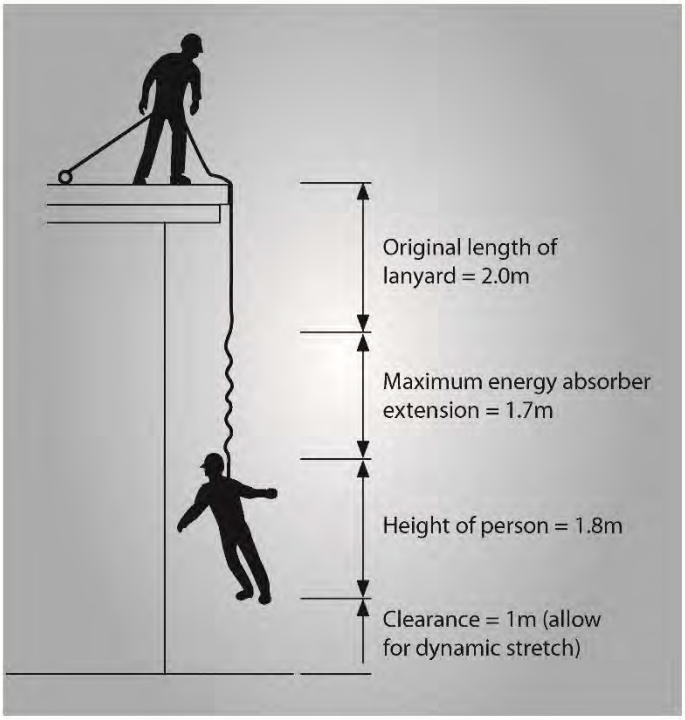
Inspection of all components should be conducted in accordance with the manufacturer's specifications and the relevant standards. If any signs of wear or weakness are found during the inspection, the components or means of attachment should be withdrawn from use until they are replaced with properly functioning components.

Limit free fall distance:

Fall-arrest systems, incorporating a lanyard, should be installed so that the maximum distance a person would free fall before the fall-arrest system takes effect is two metres. There should be sufficient distance between the work surface and any surface below to enable the system, including the action of any shock absorber to fully deploy (see Figure 21). To work out whether there is enough distance available, you should take into account:

- The worker's height.
- The height and position of the anchorage point.
- The length of the lanyard.
- Any slack in the horizontal life line.
- Any stretching of the lanyard or horizontal life line when extended by a fall.
- The length of the energy absorber when extended by a fall.

Figure 21: Total fall distance before this particular configuration would be effective in arresting a fall is 6.5m.



Lanyards should **not** be used in conjunction with inertia reels as this can result in an excessive amount of free fall prior to the fall being arrested.

Use suitable harnesses:

In most cases, a full body harness should be worn. Harnesses must be correctly fitted. Workers should connect the fall-arrest line to the attachment point on their harness (dorsal attachment point or the chest connection) that will provide the best protection in the situation it is being used. Consideration should be given to the potential fall distance, potential impact with the structure, body position after a fall and the need to interact with equipment such as rope-grabs.

Maintain minimum of slack in fall-arrest lanyard:

There should be a minimum of slack in the fall-arrest lanyard between the user and the attachment. The anchorage point should be as high as the equipment permits. Avoid work above the anchor point, as this will increase the free fall distance in the event of a fall, resulting in higher forces on the body and greater likelihood of the lanyard snagging on obstructions.

Use inertia reels correctly:

When considering the use of inertia reels, bear in mind that they might not be effective in certain situations. For example, if a worker falls down the inclined surface of a steeply pitched roof, the inertia reel line may keep extending from the reel—it may not lock.

Inertia reels should not be used as working supports by locking the system and allowing it to support the user during normal work. They are not designed for continuous support.

Vertical and self-retracting anchorage lines can be used as a risk control measure in connection with work performed from boatswains' chairs and ladders. Where such lines are used, only one person may be attached to any one line.

Use compatible components:

The use of non-compatible components may lead to ‘roll-out’ with some hook/karabiner configurations, resulting in injury or death to the user. The hazard cannot always be avoided by using components produced by the same manufacturer under the one brand name. If you are unsure whether components of a fall-arrest system are compatible you should contact the manufacturer for further information.

Snap hooks should be of the double action type, requiring at least two consecutive deliberate actions to open. Snap hooks should not be connected to each other as this could prevent the safe operation of the snap hook (for example, roll-out may occur). Some double action hooks are susceptible to roll-out. Screw gate karabiners or hex nut connectors may sometimes be appropriate. Further guidance is provided in AS/NZS 1891 *Industrial fall-arrest systems and devices*.

Figure 22: Roll-out on a small diameter eyebolt.

Ensure prompt rescue in event of fall

A person conducting a business or undertaking who implements a fall-arrest system as a control measure must establish emergency and rescue procedures. The rescue of a worker who is suspended in a full body harness must occur promptly to prevent suspension intolerance.

A worker should not use a fall-arrest system unless there is at least one other person on the site who can rescue them if they fall.

Hazards with individual fall-arrest systems

If a person using an individual fall-arrest system falls, the system may act as a pendulum, and in some situations the user may hit the ground (called ‘swing down’: see Figure 23) or swing back onto the building or structure (which is called ‘swing back’: see Figure 24).

Swing down can occur if the lanyard slides back along the perimeter edge of the roof until it is vertical. When this happens, the person may hit the ground, or the lanyard may break as a result of its contact with the edge of the roof. Measures to address ‘swing down’ include:

- The installation of guard rails.
- Placing the anchorage point at a right angle to the position of the lanyard at the perimeter edge (for example, by using a mobile anchorage).
- The installation of a second anchorage point and belay devices (intermediate anchorages).

Figure 23: During 'swing down' the length of the lanyard and positioning of the anchor allow contact with the ground.

Figure 24: During 'swing back' the length of the lanyard and positioning of the anchor contact may allow the worker to hit the structure.

6.4 Anchorage lines or rails:

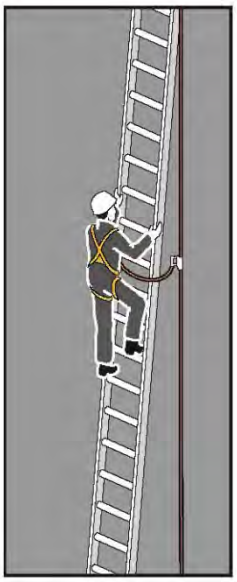
Anchorage lines or rails are temporary or permanent fall-arrest systems, which can be installed to provide continuous fall protection for persons using ladders or climbing towers. These can be used on plant, such as tower cranes, as well as buildings or structures.

Safety considerations include that:

- Temporary systems comply with the AS/NZS 1891 series of standards.
- The locking device is attached to the frontal attachment point of the harness and the lanyard assembly is a maximum of 300 mm length.
- The point of connection onto the ladder by the climber is near the base of the ladder to allow the connection before ascending begins and also to provide continuous connection to the disconnecting point when at a safe higher level.
- Free fall is limited to a maximum of 600 mm.
- Permanent systems are of wire or rail construction and are installed according to the manufacturer's instructions.

After a fall, remove the system from service and have it inspected by a competent person before it is used again.

Figure 25: With the use of an anchorage line system, the person climbing has continuous fall protection by being attached to the anchorage line and harness.

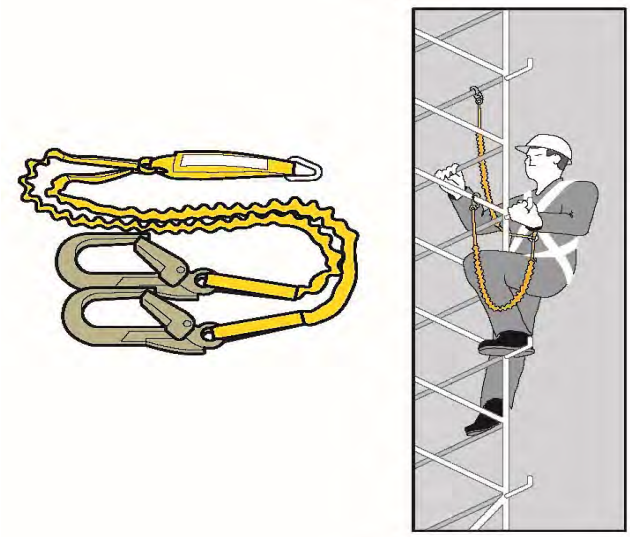


Double lanyards

An alternative to anchorage lines or rails is the use of a double lanyard (also known as a twin tail or 'Y' lanyard). Figure 26 shows how the use of a double lanyard means that the person climbing can always be connected to the ladder or structure.

However, double lanyards are easy to misuse—there should be no back hooking, they should not be wrapped around the body or passed between the legs, the chest connection should never be higher than the highest attachment point, they are not suitable for frequent use (because of possible misuse or muscle injury) and the ladder or structure points must be capable of arresting forces generated by a fall with the double lanyard. Adequate training should be provided on their use.

Figure 26: Left: An example of a double lanyard. These must have double action connectors.



Right: Person climbing with a double lanyard. Note that in this application the connectors will slide down to the lowest point on the rail and likely be subject to side loading. Side loading can be controlled by using soft connections such as slings or the use of hooks rated to withstand side loading.

7. LADDERS:

Ladders are primarily a means of access and egress. Many falls take place when people are working from ladders. In addition, when using a ladder:

- The working width and movement is limited.
- The time involved in moving and setting up ladders is often underestimated when planning work.
- The working position on ladders is often uncomfortable (the need to stretch sideways, work above shoulder height and stand on narrow rungs for a long time) and may cause musculoskeletal disorders.

For these reasons, you should consider whether an elevating work platform or scaffolding would be safer and more efficient.

7.1 PORTABLE LADDERS:

Extension or single ladders should generally only be used as a means of access to or egress from a work area. They should only be used as a working platform for light work of short duration that can be carried out safely on the ladder.

Selecting ladders:

If ladders are used they must be selected to suit the task to be undertaken. In doing this, you should consider the duration of the task, the physical surroundings of where the task is to be undertaken and the prevailing weather conditions.

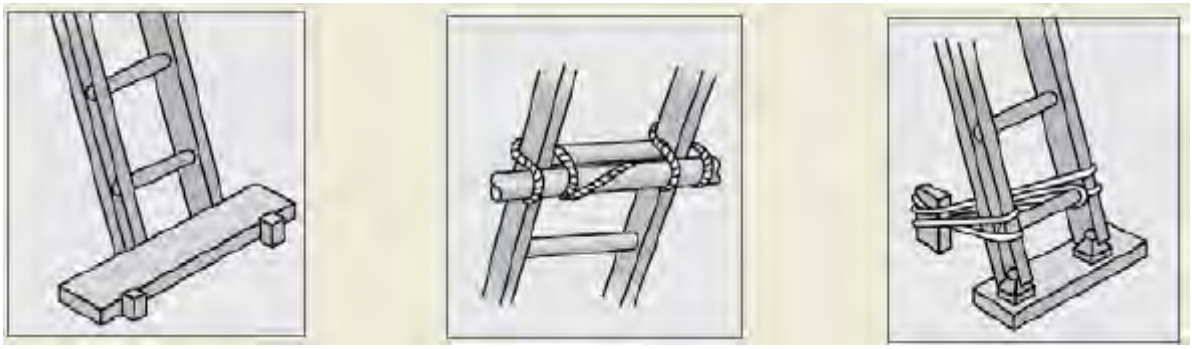
Ladders should have a load rating of at least 120 kg and be manufactured for industrial use.

Positioning ladders:

Any ladder used at a workplace must be set up on a solid and stable surface, and set up so as to prevent the ladder from slipping. Single and extension ladders can be prevented from slipping by:

- Placing ladders at a slope of 4:1, and setting up stepladders in the fully opened position.
- Securing ladders at the top or bottom, or if necessary, at both ends (see Figure 27).

Figure 27: Some effective ways of securing a ladder

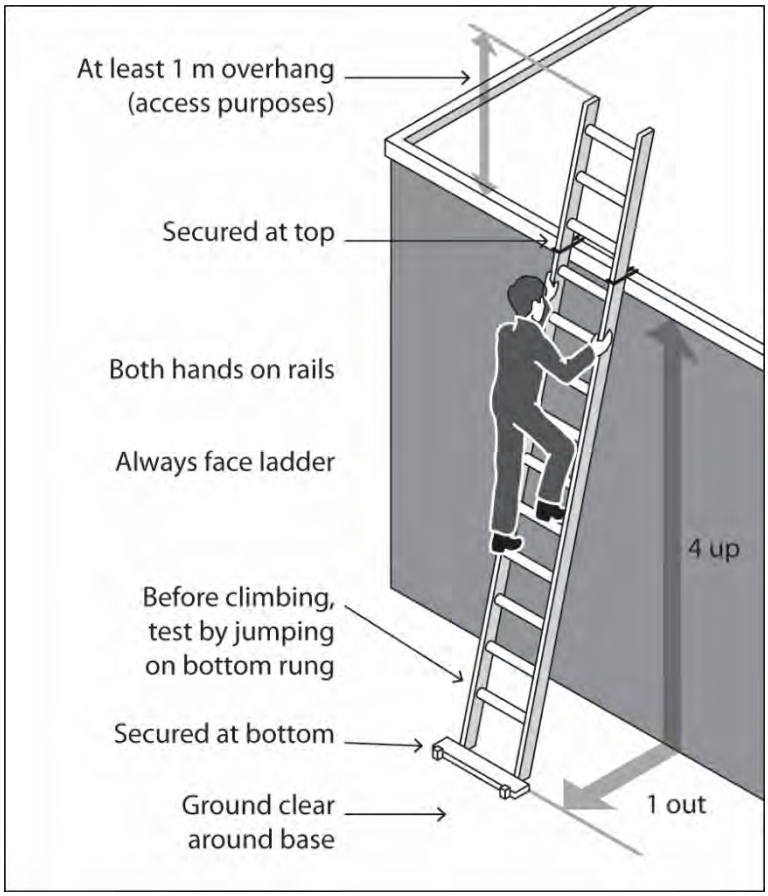


Access or egress:

Where fixed or extension ladders are used for access or egress, you should check that:

- There is a firm, stable work platform, free from obstructions, to step onto from the ladder.
- The ladder extends at least one metre above the stepping-off point on the working platform.
- Fall protection is provided at the stepping-off point where people access the working platform.

Figure 28: Example of acceptable ladder use



Safe Use of Ladders:

When a ladder is used, you should check that:

- The ladder is in good condition—the ladder should be inspected for faults, such as broken rungs, stiles and footing before it is used.
- Damaged ladders are removed from service.
- The ladder is set up on firm, stable and level ground.
- The ladder is the correct height for the task to avoid reaching or stretching.
- The ladder is not too close or too far from the support structure—the distance between the ladder base and the supporting structure should be about one metre for every four metres of working ladder height (4:1 ratio).
- The ladder is secured against displacement (i.e. slipping or sliding) and/or there is another person holding the base of the ladder.
- The ladder is not placed so that the weight of the ladder and any person using the ladder is supported by the rungs.
- All the locking devices on the ladder are secure.
- Materials or tools are not carried while climbing the ladder—use a tool belt or side pouch.
- Only light duty work is undertaken while on the ladder, where three points of contact can be maintained and tools can be operated safely with one hand.
- Slip resistant base, rungs or steps are provided.
- slip resistant shoes are worn.

- ladders are not used without additional appropriate precautions:
    - in access areas or doorways—if necessary, erect a barrier or lock the door shut;
    - on scaffolding or an elevating work platform to get extra height;
    - next to power lines unless the worker is trained and authorised and the appropriate ladder is being used;
    - in very wet or windy conditions; and
    - next to traffic areas, unless the working area is barricaded.

Figure 29: A step platform can provide a stable work surface

When using ladders, it is not safe to:

- Use metal or metal reinforced ladders when working on live electrical installations.
- Carry out work such as arc welding or oxy cutting.
- Work over other people.
- Allow anyone else to be on the ladder at the same time.

Except where additional and appropriate fall protection equipment is used in conjunction with the ladder, it is not safe to:

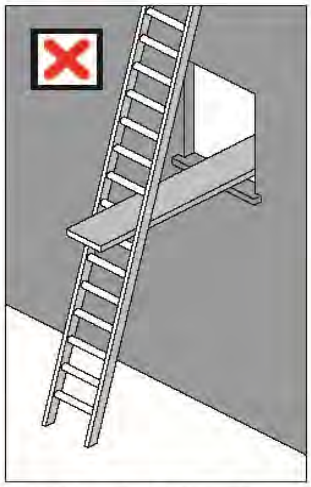
- Use a stepladder near the edge of an open floor, penetration or beside any railing.
- Over-reach (the centre of the torso should be within the ladder stiles throughout the work).
- Use any power or hand tool requiring two hands to operate, such as concrete cutting saws and circular saws.
- Use tools that require a high degree of leverage force which, if released, may cause the user to over-balance or fall from the ladder, such as pinch bars.
- Face away from the ladder when going up or down, or when working from it.
- Stand on a rung closer than 900 mm to the top of a single or extension ladder.
- Stand higher than the second tread below the top plate of any stepladder (with the exception of three-rung step ladders).

Guidance on the selection, safe use and care of portable ladders is set out in AS/NZS 1892 Portable ladders series. The

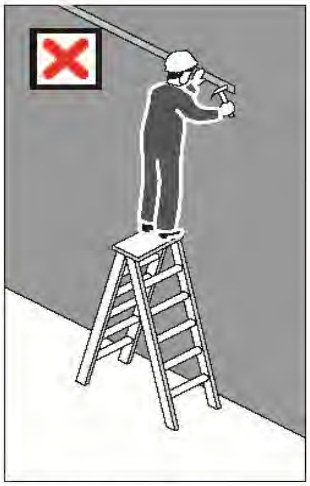
manufacturer's recommendations on safe use should also be followed.

Figure 30: Examples of unsafe ladder use

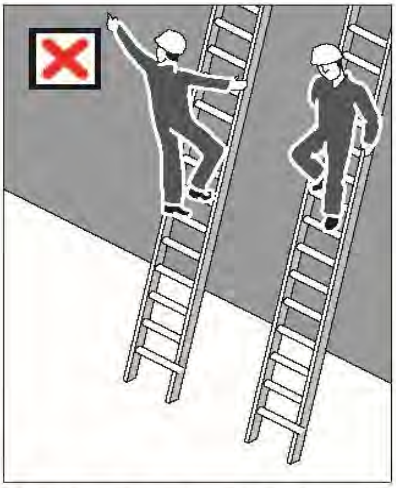
Performing hot work from ladder



Ladder set up incorrectly



Standing on top plate of stepladder



Facing away from the ladder to descend; over-reaching

7.2 FIXED LADDERS:

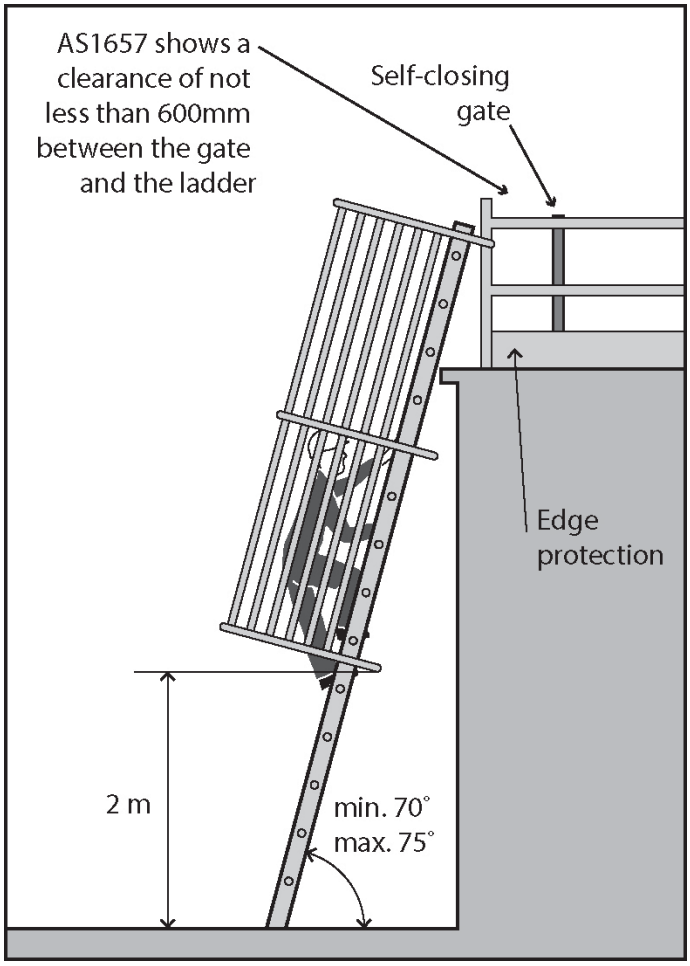
Fixed ladders should be installed in accordance with AS 1657 Fixed Platforms, Walkways, Stairways and Ladders—Design, Construction and Installation.

Ladder cages in fixed ladders do not stop a fall but simply funnel a fall and, in some cases, more injuries can occur from striking the protective backguards on the way down. The cages may also hinder rescues. Therefore, fixed ladders with angles exceeding 75 degrees to the horizontal should be fitted with a permanent or temporary fall-arrest system (anchorage lines or rails).

The angle of slope should not be less than 70 degrees to the horizontal and not greater than 75 degrees to the horizontal. **In no case should the ladder overhang the person climbing the ladder**. If the angle is more than 75 degrees, a safe system of work to prevent falls should be provided such as a permanent fall-arrest system or a full body harness with double arm lanyard.

A specifically designed rescue procedure should be developed for use in ladder cage situations. Training in rescue procedures should occur before using the fixed ladder.

Figure 31: Example of a fixed ladder fitted with a ladder cage



7.3 LADDER MAINTENANCE:

Ladders should be regularly inspected by a competent person in accordance with the manufacturer's recommendations. Ladders with any of the following faults must be replaced or repaired:

- Fibreglass stiles cracked, chipped or severely faded with fibres exposed.
- Timber stiles warped, splintered, cracked or bruised.
- Metal stiles twisted, bent, kinked, crushed or with cracked welds or damaged feet.
- Rungs, steps, treads or top plates that are missing, worn, damaged or loose.
- Tie rods missing, broken or loose.
- Ropes, braces, or brackets that are missing, broken or worn.
- Timber members that are covered with opaque paint or other treatment that could disguise faults in the timber.
- Missing, loose, bent or worn fasteners, i.e. rivets, bolts and pins.
- Worn or damaged feet, including non-slip material.

8. ADMINISTRATIVE CONTROLS

Administrative controls may be used to support other control measures and may include 'no go' areas, permit systems, the sequencing of work and safe work procedures. Using administrative controls exclusively to minimise the risk of falls is only appropriate when it is not reasonably practicable to use a higher order control.

Figure 32: **Example of a sign for a 'no go' area**

'No go' areas:

'No go' areas can be an effective method of making sure people are not exposed to hazards. They require clear signs warning people not to access the hazardous area. They can be used to highlight the risks of entry to an area where there is an unguarded hazard, or to areas where work is being undertaken overhead and there is a risk of falling objects.

Relevant information and instruction should be provided about 'no go' areas with adequate supervision to ensure that no unauthorised worker enters the 'no go' area.

Barriers should be used in conjunction with signs to cordon-off areas where there is a risk of falling or being hit by falling objects. They should be highly visible and securely fixed to prevent displacement.

Permit systems:

Permit systems allow only competent persons trained in the use of relevant control measures to work in an area where there is a hazard. Examples include:

- Tagging all access points to a scaffold to restrict unauthorised access during erection and dismantling, with 'only licensed scaffolders permitted on an incomplete scaffold'
- Requiring permits for access to areas where travel restraint systems or fall-arrest systems are to be used.

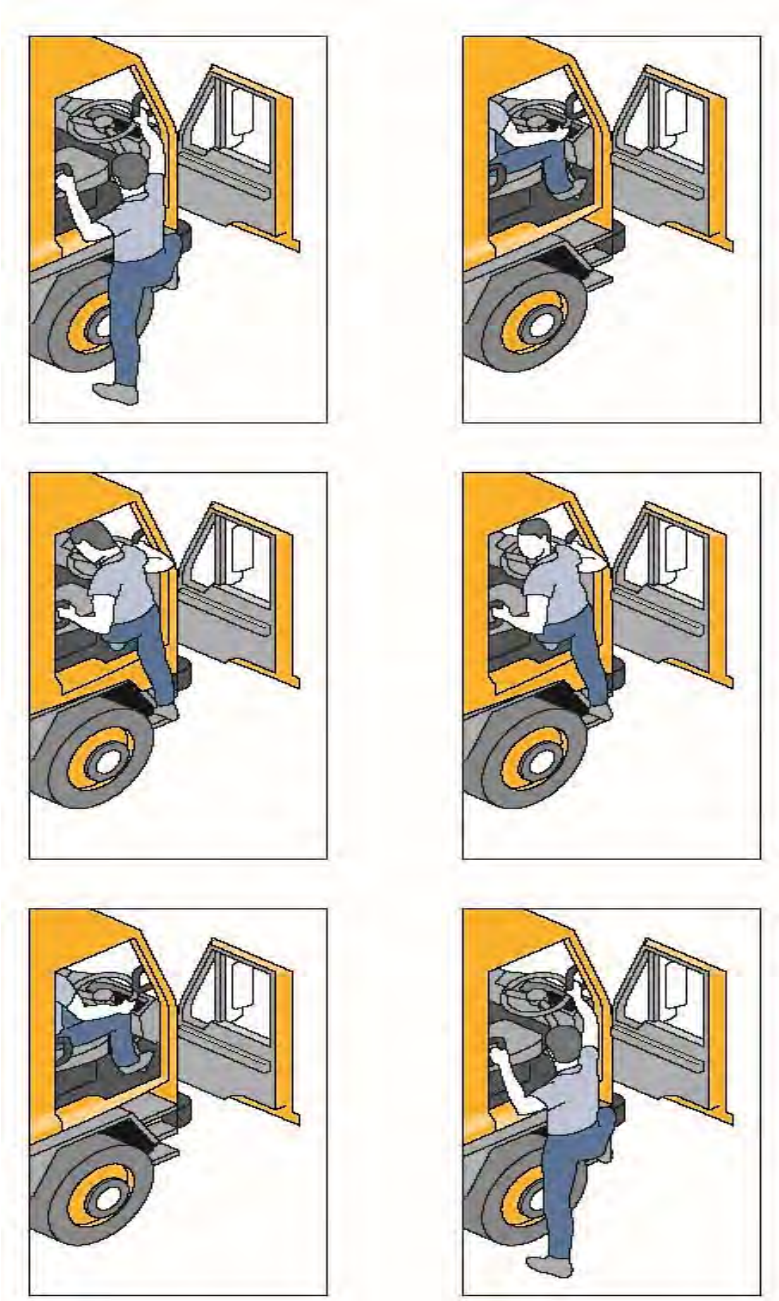
Organising and sequencing of work

Work should be organised so that people do not interfere with other workers or increase the risk to themselves or others. For example, you can sequence jobs so that different trades are not working above or below each other at the same time. Plan the work so tasks are not performed for extended periods from a ladder, or so that work at height is minimised in extremely hot or cold weather.

Safe work procedures:

An administrative control may be as simple as a safe work procedure that describes the steps involved in safely undertaking a task. It may also include any particular training, instruction and the level of supervision required. For example, a safe work procedure to reduce the risk of falls when entering or exiting vehicles may include instructing drivers to not jump down from the cab and always maintain three points of contact when climbing into or out of the cab (see Figure 33).

Figure 33: Diagrams showing the correct procedure for climbing in and out of trucks



If relying on administrative controls, it may be necessary to provide a high level of supervision to ensure that the safe work procedure is being adhered to.

9. EMERGENCY PROCEDURES FOR FALLS:

Whenever there are risks from working at height, appropriate emergency procedures and facilities, including first aid, must be established and provided. Typical injuries from falls can include unconsciousness and occluded airway, impalement, serious head or abdominal injuries and fractures.

A person using a fall-arrest system could suffer suspension intolerance as a result of a fall. The WHS Regulations contain a specific provision to address the need for emergency and rescue procedures for such situations.

Regulation 80: A person conducting a business or undertaking who implements a fall-arrest system as a measure to control risk must establish emergency and rescue procedures.

The procedures must be tested so that they are effective. Workers must be provided with suitable and adequate information, instruction and training in relation to the emergency procedures.

9.1 EMERGENCY PROCEDURES:

In developing emergency procedures, the different types of emergency and rescue scenarios that might arise should be considered. Information from the risk assessment will help in this task.

Regulation 42: You must ensure that workers have access to first aid equipment and facilities for the administration of first aid. You must also ensure that workers are trained to administer first aid or that workers have access to persons who are trained in first aid.

Further guidance is available in the First Aid in the Workplace Code of Practice [under development].

The emergency procedures for falls may be incorporated into the emergency plan required for the workplace under the WHS Regulations.

When establishing emergency procedures, you should take into account the following:

Relevant considerations	Questions
Location of the work area	Is the work at height being undertaken in a remote or isolated place? How accessible is it in an emergency and how far away is it from appropriate medical facilities? Can the rescue of a person after an arrested fall be provided immediately, without the need to rely on emergency services?
Communications	How can workers working at height communicate in an emergency?
Rescue equipment	What kinds of emergencies may arise? The provision of suitable rescue equipment will depend on the nature of the work and the control measures used, for example, an emergency rapid response kit with man-made fibre rope, according to AS/NZS 4142.3 *Fibre ropes—Man-made fibre rope for static life rescue lines* . Selected rescue equipment should be kept in close proximity to the work area so that it can be used immediately.
Capabilities of rescuers	Are rescuers properly trained, sufficiently fit to carry out their task and capable of using any equipment provided for rescue (e.g. breathing apparatus, lifelines and fire-fighting equipment)? Have emergency procedures been tested to demonstrate that they are effective?

Relevant considerations	Questions
First aid	Is appropriate first aid available for injuries associated with falls? Are trained first aiders available to make proper use of any necessary first aid equipment?
Local emergency services—if they are to be relied on for rescue	How will the local emergency services (e.g. ambulance) be notified of an incident? What is the likely response time?

9.2 SUSPENSION INTOLERANCE:

Suspension intolerance can occur with a fall-arrest system when a person has an arrested fall and is suspended in an upright, vertical position with the harness straps causing pressure on the leg veins. The lower legs' capacity to store large amounts of blood reduces the return of blood to the heart, slowing the heart rate, which can cause the person to faint. This may lead to renal failure and eventually death, depending on a person's susceptibility. This condition may be worsened by heat and dehydration.

The quick rescue of a person suspended in a full body harness, as soon as is possible, is vital. For this reason, workers should be capable of conducting a rescue of a fallen worker and be familiar with onsite rescue equipment and procedures.

Workers and emergency response workers must be trained in the rescue procedures and be able to recognise the risks of suspension intolerance and act quickly in the rescue of a person.

Preventing suspension intolerance:

To prevent suspension intolerance occurring as a result of an arrested fall, you should ensure that:

- Workers never work alone when using a harness as fall protection.
- Workers use a harness, which allows legs to be kept horizontal.
- The time a worker spends in suspension after a fall is limited to less than five minutes. When a suspension is longer than five minutes, foothold straps or a way of placing weight on the legs should be provided.
- Workers are trained to do the following when they are hanging in their harness after a fall:
    - move their legs in the harness and push against any footholds, where these movements are possible. In some instances, the harness design and/or any injuries received may prevent this movement; or
    - move their legs as high as possible and the head as horizontal as possible, where these movements are possible.

Training for rescues:

The training for rescuing workers who have fallen should address the following factors:

- The rescue process should start immediately.
- Training frequency should take into account the worker's competence and their ability to retain competence through regular exposure to the equipment and skills needed to perform a rescue.
- Workers should not put themselves at risk during a rescue.

10. DESIGN OF PLANT AND STRUCTURES:

10.1 DESIGN CONSIDERATIONS

Consideration of the potential risk of falls early when designing plant or structures can result in the elimination of such risks. Where elimination is not possible, one way to minimise risks at the design stage is to integrate fall prevention systems into the design.

Safety considerations at the design stage should include:

- Safe entry to and exit from any work area.
- Designing permanent guard rails or other forms of edge protection (for example, parapet walls) for permanent fall prevention on roofs
- Future maintenance requirements, especially in relation to sloping building exteriors and windows, to ensure maintenance can be carried out safely.
- Specifying the strength of roof members and other points to which guard rail, or anchor points for work positioning systems will be fixed.
- Safer building design generally, with, for example:
    - low-level mounting of roof vents;
    - the location of air conditioning units and other roof-mounted plant, such as satellite dishes, away from edges;
    - the location of air conditioning and similar plant at ground level;
    - the specification of non-fragile material for the roof;
    - the use of permanent safety mesh; and
    - safer gutters, for example, installing large volume gutters and down pipes to minimise the need to access the roof for cleaning, locating the gutters at ground level or away from edges, or the removal of gutters altogether, with a smooth transition from the roof to the walls with the gutters at ground level.
- Specific safety requirements for particular workers doing subsequent installation, maintenance or repair work. These groups include:
    - people installing and maintaining antennae and satellite dishes;
    - contractors servicing air conditioning equipment on the roof; and
    - window and gutter cleaners and repairers
- Designing the pre-fabrication of structures on the ground before they are lifted into position.

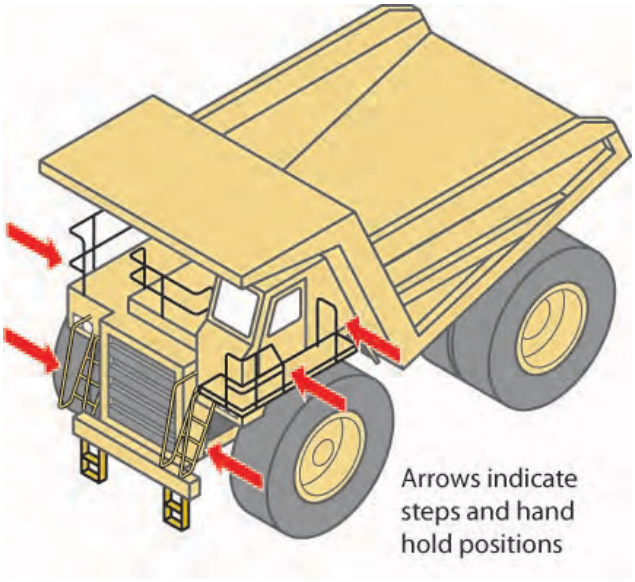
10.2 Plant:

Safety considerations at the design stage could include:

- Providing adequate steps and hand rails on vehicles (see Figure 34).
- Incorporating a fall prevention system in silos and overhead conveyors.
- Ensuring workers who will be maintaining or cleaning the plant are able to do so safely.
- Considering the safety of passengers.

Section 21: Designers must provide information to each person who is provided with the design that includes information on the purpose for which the plant was designed and how the use the plant safely.

Figure 34 Dump trucks



10.3 BUILDINGS AND STRUCTURES:

Designers or constructors of buildings or structures must ensure, so far as is reasonably practicable, that workers involved with the construction, use or subsequent maintenance are not exposed to the risks associated with work at height. Therefore, at the design and planning stage, it is important to consider providing fall prevention systems as part of the building or structure.

As it is unlikely that all design work on larger projects will be carried out by one designer, consultation, co-operation and co-ordination should occur between the builder and other designers to ensure the safe interaction of the different design aspects.

When risks remain in the design work, information must be included with the design to alert others to the risks. Providing information about safety issues is a key component to ensure proper, adequate and suitable design and installation.

The design and planning for the construction stage should include:

- Reducing the risk for those working at heights, such as the installation of guard rails to perimeter structural members prior to erection.
- Reducing the time spent working at heights by pre-fabricating modules on the ground, before lifting them into position.
- Sequencing of the work to be performed at heights.
- The location and condition of access roads, for example to enable a crane to place building materials in the most appropriate and accessible location, rather than the materials being moved manually.
- Preparation of the ground or floor below the work area. It should be compacted and level to support plant or equipment, such as cranes and scissor lifts.
- Identification of underground services including drainage, for example for the safe setting up of cranes.
- Provision of permanent safety mesh.

Planning for building maintenance:

During the planning stage, consideration should also be given to the methods by which maintenance, repairs or cleaning will be undertaken on a building or structure, for example:

- Designing window cleaning bays or gangways integrated into the structural frame.
- Designing permanent anchorage and hoisting points into structures where maintenance needs to be undertaken at height.

Planning the site layout:

When planning the site layout, the following factors should be considered:

- The preparation of firm, level surfaces below work areas for the support of plant and equipment, such as scissor lifts or mobile scaffolds.
- The site and condition of access roads to enable plant to place material in and pick it up from the most favourable positions, thereby reducing, for example, the need for manual handling at height.
- Safe access to and egress from work areas and amenities, including the provision and placement of stairways, ladders, catwalks, guardrails and barriers.
- The need for adequate means of escape and rescue in the event of an emergency.

APPENDIX A – TERMS USED IN FALL CONTROL MEASURES:

Anchorage: means a secure point for attaching a lanyard, lifeline or other component of a travel restraint system or fall-arrest system. Anchorages require specific load and impact capacities for their intended use.

Double or triple action device: is a self-closing hook or karabiner with a keeper latch which will automatically close and remain closed until manually opened. These units have a minimum of at least two distinct and deliberate consecutive actions to manually open them.

Free fall: is any fall or part of a fall where the person falling is under the unrestrained influence of gravity over any fall distance, either vertically or on a slope on which it is not possible to walk without the assistance of a handrail or hand line.

Inertia reel: (also known as a self-retracting lanyard or fall-arrest block) is a Type 2 or 3 fall-arrest device that arrests a fall by locking onto a line and at the same time allows freedom of movement.

Karabiners: these are metal types of connectors that can be attached to anchorage points. They come in a variety of sizes, shapes and locking mechanisms to suit various applications. They should be self-closing and self- or manual-locking and capable of being opened only by at least two consecutive deliberate manual actions.

Lanyard: an assembly consisting of a line and components which will enable connection between a harness and an anchorage point and will absorb energy in the event of a fall.

Personal energy absorber (or deceleration device): means a device which reduces the deceleration force imposed when a fall is suddenly arrested, and correspondingly reduces the loadings on the anchorage and the person's body. The energy absorber may either be a separate item or manufactured as part of the lanyard.

Restraint line: is the line securing workers to a point of anchorage and is used to prevent a person from reaching a point from which he or she could fall.

Static line: is a horizontal or substantially horizontal line to which a lanyard may be attached and which is designed to arrest a free fall.

Total fall distance: is the total distance a person is likely to fall during both the free and restrained parts of a fall and includes the maximum dynamic extension of all supporting components.

APPENDIX B – REFERENCES AND OTHER INFORMATION SOURCES

Australian Standards and Australian / New Zealand Standards

AS 1418.13 Cranes (including Hoists and Winches) – Building Maintenance Units

AS/NZS 1576 Scaffolding series

AS/NZS 1657 Fixed platforms, walkways, stairways and ladders—Design, construction and installation

AS/NZS 1891.1 Industrial fall-arrest systems and devices—Harnesses and ancillary equipment

AS/NZS 1891.2 supp:1-2001 Industrial fall-arrest systems and devices—Horizontal lifeline and rail systems—Prescribed configurations for horizontal lifelines (Supplement to AS/NZS 1891.2:2001)

AS/NZS 1891.3 Industrial fall-arrest systems and devices—Fall-arrest devices

AS/NZS 1891.4 Industrial fall-arrest systems and devices—Selection, use and maintenance

AS/NZS 1892 Portable ladders series

AS/NZS 4142.3 Fibre ropes—Man-made fibre rope for static life rescue lines

AS/NZS 4389 Safety mesh

AS/NZS 4488 Industrial rope access systems series

AS/NZS 4488.2 Industrial rope access systems—Selection, use and maintenance

AS/NZS 4576 Guidelines for scaffolding

AS 2550.16 Cranes—Safe Use—Mast climbing work platforms

AS/NZS 4994 Temporary edge protection series

Available from: SAI Global Limited

- Business Publishing
- GPO Box 5420, Sydney, NSW, 2001
- Tel.: 131 242 or (02) 8206 6000
- Fax: 1300 65 49 49 or (02) 8206 6001
- Email: Email mail@saiglobal.com
- Internet address: saiglobal.com.au

British Standards Institution

BSEN 1263-1:2002 Safety nets: Safety requirements, test methods

BSEN 1263-2:2002 Safety nets: Safety requirements for the positioning limits

Internet address: bsi-global.com

LIST OF AMENDMENTS

Date	Page Number	Amendments
11 March 2015	Front cover	Republication date of March 2015 added to the front cover.
11 March 2015	5	Chapter reference amended to Chapter 10.
11 March 2015	38	Figure 31 adjusted so the self-closing gate is not at the top of the access ladder.

#Falls2

PREVENTING FALLS IN HOUSING CONSTRUCTION

Code of Practice - FEBRUARY 2016

- This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.
- A copy of this code is included for download in CCCVaT's website along with other codes referred to in this Workplace Health and Safety Manual which have not be published in this document.
- The reason this Code of Practice was not published in this document was due to its worth to Churches. That is not to imply that it is not relevant and should the Church become involved in the construction of a house, it should be referred to before embarking on this exercise.

Fire Alarms

TABLE OF CONTENTS – FIRE ALARMS:

1. INTRODUCTION:

This guide is based upon material supplied by the Victorian Building Authority [VBA], the Melbourne Metropolitan Fire Brigade [MFB] and Tasmania Fire Service.

It addresses general requirements under workplace health and safety, however does not prescribe types and standards of equipment required under the Building Code of Australia; for such information visit: Link to Building Code of Australia [BCA] Specification E2.2

2. PURPOSE:

Smoke hazard management systems are designed to trigger an alarm in the event of fire or smoke being detected, to allow occupants adequate time to evacuate the building before escape routes become impassable. Depending upon the type deployed they can also alert emergency services to the situation.

3. WHY SHOULD I HAVE A SMOKE ALARM?

- When you're asleep you lose your sense of smell, therefore a smoke alarm may be the only means of alerting you to the presence of fire or smoke.
- Fires that start in one part of a building may not initially be detected in another part of the building, especially when in a room with the door closed, and as a small fire can grow to involve an entire room in two to three minutes, a smoke alarm provides early warning and time to escape.

4. SMOKE ALARMS:

Smoke alarms are compulsory and must be installed in every building, on or near the ceiling of every storey and be located in a position designed to wake sleeping occupants.

A residential building includes the following building Classes as broadly defined in the National Construction Code (NCC):

- Class 1a: Detached houses, row houses, town houses, terrace houses or villa units
- Class 1b: Some boarding houses, guest houses or hostels
- Class 2: Buildings containing sole-occupancy units (e.g. apartments, blocks of flats)
- Class 3: Backpacker accommodation, residential parts of hotels or motels, residential parts of schools, accommodation for the aged, disabled or children
- Class 4: Dwellings in non-residential buildings (e.g. houses attached to shops).

The Building Regulations 2018 (the Regulations) state that smoke alarms must meet the Australian Standard AS 3786-1993. Complying models can be found at most electrical appliance outlets or hardware stores.

Smoke alarms must be connected (hard wired) to the building's consumer mains power source as well as having a battery back-up, unless the building was built before 1 August 1997.

All smoke alarms:

- Must contain a battery
- Need to be tested regularly
- Need to be replaced after 10 years

Qualified electricians must install smoke alarms that are 'hard wired' to the consumer mains power source, but battery operated smoke alarms can be installed by anyone.

It is usually the owners or landlord's responsibility to ensure smoke alarms are installed and kept in working condition.

It is recommended that you:

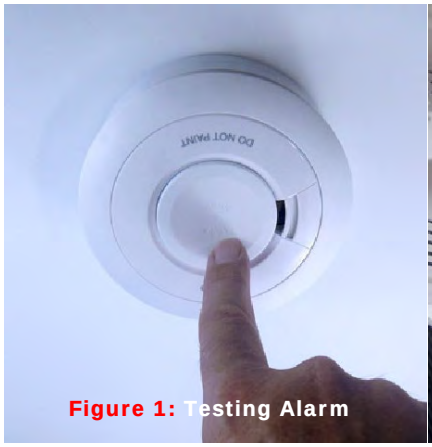


Figure 1: Testing Alarm

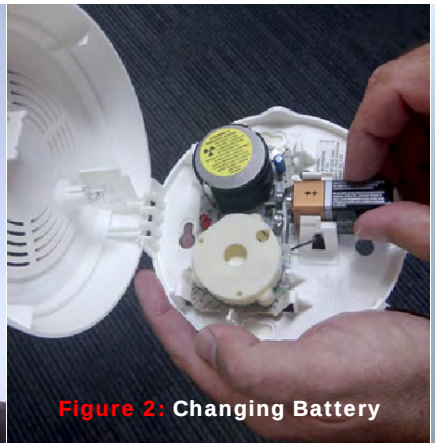


Figure 2: Changing Battery

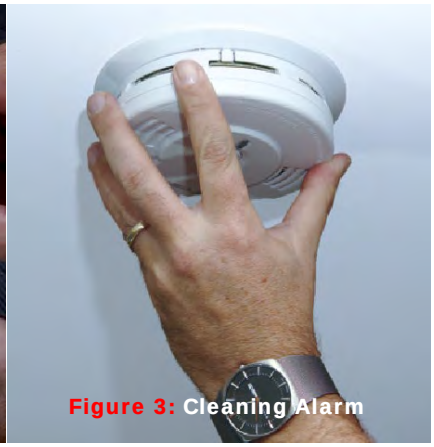


Figure 3: Cleaning Alarm

- Check your smoke alarm is working by pressing the button on its outside [Figure 1].
- Replace your smoke alarm battery on an annual basis (if the battery is lithium ion, every ten years) [Figure 2].
- Replace the battery, if your smoke alarm emits a warning sound (a high-pitched single beep every 30 seconds).
- Clean your alarm regularly to remove dust particles [Figure 3].

- Familiarise yourself with the manufacturer's maintenance guidelines.

A fine can be imposed on an owner who fails to comply with the smoke alarm requirements of the Regulations.

5. LOCATING A SMOKE ALARM.

- Smoke alarms must be installed in accordance with Building Code of Australia [BCA] Specification E2.2 and AS 1668.1 – 1998. Link to AS 1668.1 1998
- Smoke alarms must be located between each bedroom area and the rest of the house.
- In addition inside any bedroom where someone sleeps with the door shut
- In a two storey premises a smoke alarm is required on every storey, located in the path that people will use to evacuate
- **Note:** cooking fires are common. High ceilings or the layout of the kitchen may increase the time it takes for your smoke alarm to operate. Consider installing a photo-electric smoke alarm closer to the kitchen area.
- Installation of a smoke alarm is quick and easy. Follow the manufacturer's instructions. Generally, because smoke rises, mounting in the middle of the ceiling is recommended.
- Maximum protection can be gained from interconnecting smoke alarms - when one smoke alarm operates, all connected alarms will operate.

6. HARD OF HEARING:

6.1 TASMANIA:

If you require an alarm for the Deaf or Hard of Hearing contact Tasdeaf.

- **Phone/TTY (03) 6228 1955**
- **Email: info@tasdeaf.org.au**
- **Fax: (03) 6228 1966**

6.2 VICTORIA:

The Victorian State Government provides a subsidy for Victorians who are profoundly deaf.

The Vicdeaf Smoke Alarm Subsidy covers the cost of a visual and vibrating smoke alarm. These alarms usually cost around $650* to the consumer, compared with a regular smoke alarm which costs around $20-$50. The State of Victoria has provided the Smoke Alarm Subsidy Initiative with funds to cover the cost of these alarms with the profoundly deaf consumer only having to pay $50.

Victorians are now able to apply for more than one smoke alarm per household. For example, if four people live together, and three of the four people are deaf. Three smoke alarms can be purchased for the same house, one for each deaf person.

For details on eligibility and how to apply visit: Vicdeaf Smoke Alarm Subsidy

LINK TO YOUTUBE VIDEO [SUBITLED]

Fire Protection & Safety

TABLE OF CONTENTS – FIRE PROTECTION & SAFETY:

INTRODUCTION:

Fire protection is regulated by the Australia Building Codes Board [ABCB]

The ABCB is a Council of Australian Government (COAG) standards writing body that is responsible for the development of the NCC, comprised of the BCA and the PCA. The ABCB is a joint initiative of all three levels of government in Australia. It was established by an Inter-government agreement (IGA) that was first signed by the Commonwealth, States and Territories on 1 March 1994, and has been updated from time to time since. The ABCB is also a regulatory reform vehicle for COAG, and reports to the Australian Government Minister and State and Territory Ministers responsible for building and plumbing regulatory matters, also known as the Building Ministers' Forum (BMF).

As the code is subject to copy write and is extensive it has not be reprinted, however a copy is provided on the website to access.

1 PORTABLE FIRE EXTINGUISHERS AND FIRE BLANKETS:

1.1 PURPOSE:

Portable fire extinguishers provide a means with which to extinguish a fire.

1.2 PORTABLE FIRE EXTINGUISHERS:

Fire extinguishers contain an extinguishing agent specifically formulated to extinguish fire fueled by various type of combustible materials or substances. Fire extinguishers complying with Australian Standards are marked with a fire classification and rating, determined in accordance with AS/NZS 1850, which indicates the class and size of fire for which they have been successfully tested.

Australia Standard - AS 2444 Portable Fire Extinguishers (FE):

- Are to be selected, located and distributed in accordance with Australian Standard (AS) 2444 - Portable Fire Extinguishers and Fire Blankets - Selection and Location.
- Are to be installed [recommended] in a conspicuous position and where practical in the normal Paths of Travel (POT) adjacent to the exit doors.
- Sets out the types and locations required for portable fire extinguishers, the locations being indicated by the appropriate signage.
- Requires FE's to be located within 2m -20m of a Switchboard it also requires FE to be located no greater than 15m from Class A fire risks. The standard has a full list of travel distances and you should consult with your fire service provider to ensure all FE are located in accordance with AS 2444.

Australia Standard - AS 1851 - Maintenance of Fire Protection Systems & Equipment:

Details the frequency in which your FE'S are to be maintained. The standard calls up for six monthly maintenance to all FE'S. It is a four stage process to determine if the extinguisher operates properly, requires repairs, or should be replaced. The standard outlines the specifics of these requirements. The basics of these stages are as follows:

Stage 1: Stage 1 outlines the series of tests used to determine the operating capacity of the extinguisher. It also outlines schedules for maintenance and testing for the fire protection equipment. Testing doesn't include a pass or fail based results requirement

Stage 2: Stage 2 of the standard outlines report records management. This pertains to all functional activities. It also identifies what information is required for each record.

Stage 3: Stage 3 outlines how to report issues with the equipment to the manufacturer or supplier. It determines if the requirements for re-establishing operations for the equipment was rectified. It also determines how extensive these repairs were.

Stage 4: Stage 4 presents how to prepare annual reports. It also shows how the company should manage any issues that weren't resolved. The annual condition report for all extinguishers is covered during this stage.

1.3 TYPES OF FIRE EXTINGUISHERS:

Class A: Fire extinguishers are recommended to extinguish fires that involve paper products, fabrics of textiles, wood-based products, plastics, and rubber-based products. The type of Class A fire extinguishers that fall into this category are Powder ABE, water, foam and wet chemicals

Class B: Fire extinguishers are recommended to extinguish fires that are fuelled by flammable or combustible liquids. In the work environment, this could include chemical-based cleaning products, electrical contact cleaner, and lubricants used for equipment. The Class B fire extinguishers that address these materials include Powder ABE and BE, and foam.

Class C: Fire extinguishers are recommended to extinguish fires fuelled by flammable gases. Circumstances in which these gases are used to operate machinery could lead to a fire or probable explosion. These extinguishers could put out

the fire before pressure builds and produces further events. The type of Class C fire extinguishers used for these fires are Powder ABE and BE.

Class D: Fire extinguishers recommended to extinguish fires fuelled by combustible metals, They are often used in Laboratories

Class E: Fire extinguishers recommended to extinguish fires caused by electrical failures. This includes events related to electrical equipment that requires electricity or circuit to operate. The Class E fire extinguishers used for electrical-based fires include Powder ABE and BE, carbon dioxide, and vaporizing liquid.

Class F: Fire extinguishers are recommended to extinguish fires fuelled by cooking oils and fat based products. They address fires that could occur in a kitchen setting of the workplace. Class F fire extinguishers include Powder BE and wet chemical.

Fire Blanket: Fire blankets can be used to extinguish small fires in the home, caravan, boat or garage. They can also be used to wrap around a person whose clothes have caught alight. It is best to store fire blankets in or adjacent to a kitchen but not too close to a potential hazard for example above a stove. Constructed of fibreglass, fire blankets can withstand temperatures up to 500 Celsius are compact and portable and easily stored. The blankets are packaged in a high quality, quick-release PVC container. Fire blankets come in a range of sizes and can be purchased from fire safety equipment suppliers and major hardware stores. DFES recommends fire blankets should only be used once and then replaced after use.

Safety tips

It is important to purchase a fire blanket that carries the Australian Standards Mark AS 3504. Follow the manufacturer's instructions

YES / NO — TYPE OF EXTINGUISHER Colour scheme - AS 1841.1 (Pre 1997 / Post 1997)	A Wood, Paper & Plastic	B Flammable & Combustible Liquids	C Flammable Gases	E Energised Electrical Equipment	F Cooking Oils & Fats	COMMENTS: Refer Appendix B of AS 2444
Powder ABE	✓	✓	✓	✓	✗	Special Powders are available specifically for various types of metal fires. Seek expert advice.
Powder BE	✗	✓	✓	✓	✓	Special Powders are available specifically for various types of metal fires. Seek expert advice.
Carbon Dioxide (CO_2)	* LIMITED	* LIMITED	✗	✓	✗	Generally not suitable for outdoor fires. Suitable only for small fires.
Water	✓	✗	✗	✗	✗	Dangerous if used on flammable liquid, energized electrical equipment and cooking oil/fat fires.
Foam ***	✓	✓	✗	✗	* LIMITED	Dangerous if used on energized electrical equipment.
Wet Chemical	✓	✗	✗	✗	✓	Dangerous if used on energized electrical equipment.
Vaporising Liquid	✓	* LIMITED	* LIMITED	✓	✗	Check the characteristics of the specific extinguishant.
Fire Blanket	✗	✗	✗	✗	✓	Use blanket to wrap around a human torch. Ensure you replace the blanket with a new one after use.
Fire Hose Reel	✓	✗	✗	✗	✗	Ensure you maintain a path of egress between you and the nearest exit.

* Limited indicates that the extinguishant is not the agent of choice for the class of fire, but that it will have limited extinguishing capability.
*** Solvents which may mix with water, e.g. alcohol and acetone, are known as polar solvents and require special foam. These solvents break down conventional AFFF.

NOTE: Class D fires (involving combustible metal(s) use only special purpose extinguishers and seek expert advice.

1.4 FREQUENTLY ASKED QUESTIONS [FAQ]:

How Many Extinguishers are Necessary?

The number of extinguishers necessary depends on the size of the building and the types of hazards that might be in the building. Where there may be fires from trash, wood, paper, and any other combustible materials, it is recommended to have a fire extinguisher every 75 feet. Where there may be fires from flammable or combustible liquids, there should be fire extinguishers every 50 feet. These are the maximum distances recommended and they can be closer together if necessary inside a building.

What Type of Fire Extinguisher is needed?

This is going to depend on the type of fire that could occur in the building. Different types of fire extinguishers work with different classes of fires so it's important to know what classes of fires the building could potentially have in it to determine the types of extinguishers needed for the building.

Should There Be More Than One Type of Extinguisher in a Building?

This depends on the potential classes of fires that could occur. It is possible that more than one type of fire extinguisher will be needed in a building depending on what is stored in the building and what type of business it is. The Church will need to be aware of this to ensure they have the proper types of extinguishers in their buildings.

Where Should the Fire Extinguisher be Located?

Every fire extinguisher needs to be located in an area that is conspicuous and easy access, preferably in a high traffic corridors. All Workers should be informed where the fire extinguishers are and should be able to easily find them so they can quickly get to them in case there is a fire. There should not be any empty location, even for a short while when one of the fire extinguishers will need to be repaired or replaced. An empty location can make it more time-consuming for a person to find one and could mean the fire is no longer able to be controlled by the fire extinguisher once one is found.

Is There Training Necessary to Learn to Use a Fire Extinguisher?

It is a good idea for those who may need to use the fire extinguisher to be trained on how to choose the right fire extinguisher and how to use it if there is an emergency situation. This helps them to be able to use the correct fire extinguisher and to take the proper steps to have a higher chance of stopping the fire. It also helps them learn what other fire safety equipment can be used with the fire extinguisher and how to tell if the fire is not too large for the fire extinguisher to be successful.

There are many agencies authorised or equipped to train Workers in the correct selection and use of fire extinguishers. These can be located via the web.

Does a Fire Extinguisher Need to be inspected?

Yes. All fire extinguishers in the building should be inspected every six months. This fire equipment maintenance includes other types of fire safety equipment as well so they can all be done during the same inspection. It's a good idea to do an inspection once a month to ensure the fire extinguishers are in place and have not been used. The monthly inspections don't require the help of a professional, though there should be a professional to carry out the inspections.

Who Can Perform a Fire Extinguisher Service?

The person who is going to do the inspection should be properly trained to carry out the inspection. Although there are no laws requiring training or licensing, it's recommended the inspection is done by someone who is trained, licensed, and insured. For information on fire safety equipment consult a professional fire safety company.

Does a Fire Extinguisher Need to be Pressure Tested?

Fire extinguishers can degrade over time. A pressure test means they will be emptied and then taken apart to be inspected to ensure they are still functional. They'll then be put back together and refilled. This needs to be done once every five years and is a more thorough inspection than the one that is done routinely.

Is There a Way to Tell if the Fire Extinguisher Has Been Used?

There is not always a way to tell if the fire extinguisher has been used. However, one method of figuring this out is to look at the fire extinguisher's hose to see if there is any powder at the end of it. If there is, it has likely been used and will need to be inspected and refilled.

When is it Safe to Use a Fire Extinguisher?

It is safe to use a fire extinguisher when the fire is still small. Although they can cover quite a bit of space before running out, it's a better idea to leave and seek a safe area if the fire becomes too large or starts to spread despite the fire extinguisher.

2 TRAINING:

For a simple demonstration on how to locate and use a portable fire extinguisher refer to the following link:

3 FIRE PROTECTION:

Buildings can be equipped with a number of aids to resist the spread of fire. They are listed below and each has its own unique properties that require inspection and maintenance as required under the Australia Building Code. As the code is subject to copy write and is extensive it has not be reprinted, however a summary of its sections and what they cover follow.

- Fire Doors
- Fire Curtains
- Fire Shutters
- Fire Windows
- Fire Protection at Service Penetrations
- Fire Protection Associated with Construction Joints, Spaces and the Like
- Solid Core Doors
- Smoke Doors
- Overhead Sprinklers
- Wall Wetting Sprinklers

If the Church is equipped with any of these aids, either refer to the Australian Building Code for maintenance requirements or consult with an expert.

4 FIRE PROTECION AND SAFETY:

The Essential Safety Measures Maintenance Manual produced by the Building commission itemizes most matters related to fire safety. The sections listed below each contain:

- The purpose of the safety regulation.
- Requirements of the safety regulations.
- Maintenance checks.
- Maintenance record.

Sections relating to fire protection and safety include:

4.1 BUILDING FIRE INTEGRITY:

- Building Elements required to satisfy prescribed fire-resistance level.
- Materials and assemblies required to satisfy prescribed fire hazard properties.

- Elements required to be non-combustible, provide fire -protection, compartmentation or separation
- Wall-wetting sprinklers (including doors and windows required in conjunction with wall-wetting sprinklers)
- Fire doors (including sliding fire doors and their associated warning systems) and associated self-closing, automatic closing and latching mechanisms
- Fire windows (including windows that are automatic or permanently fixed in the closed position)
- Fire shutters
- Solid core doors and associated self-closing, automatic closing and latching mechanisms
- Fire-protection at service penetrations through elements required to be fire resisting with respect to integrity or insulation, or to have a resistance to the incipient spread of fire
- Fire -protection associated with construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation
- Smoke doors and associated self-closing, automatic closing and latching mechanisms
- Proscenium walls (fire curtains)

4.2 MEANS OF EGRESS:

- Paths of travel to exits.
- Discharge from exits (including paths of travel from open spaces to the public roads to which they are connected).
- Exits (including fire-isolated stairways and ramps, non-fire isolated stairways and ramps, stair treads, balustrades and handrails associated with exits, and fire -isolated passageways).
- Smoke lobbies to fire-isolated exits.
- Open access ramps or balconies for fire-isolated exits.
- Doors (other than fire or smoke doors) in a required exit, forming part of a required exit or in a path of travel to a required exit, and associated self-closing , automatic closing and latching mechanisms.

4.3 SIGNS:

- Exit signs (including direction signs).
- Signs warning against the use of lifts in the event of fire.
- Warning signs on sliding fire doors and doors to non-required stairways, ramps and escalators.
- Signs, intercommunication systems, or alarm systems on doors of fire-isolated exits stating that re-entry to storey is available.
- Signs alerting persons that the operation of doors must not be impaired.
- Signs required on doors, in alpine areas, alerting people that they open inwards.
- Fire order notices required in alpine areas.

4.4 LIGHTING:

- Emergency lighting.

4.5 FIRE FIGHTING SERVICES AND EQUIPMENT:

- Fire hydrant system (including on-site pump set and fire -service booster connection).

- Fire hose reel system.
- Sprinkler system.
- Portable fire extinguishers.
- Fire control centres (or rooms).
- Provisions for special hazards.

#First Aid

FIRST AID IN THE WORKPLACE

Code of Practice - FEBRUARY 2016

- **LIST OF AMENDMENTS**

1 INTRODUCTION

Providing immediate and effective first aid to people who have been injured or become ill may reduce the severity of the injury or illness and promote recovery. In some cases it could mean the difference between life and death.

This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments which has been modified for Church reference and use.

1.2 KEY TERMS:

- **First aid** is the immediate treatment or care given to a person suffering from an injury or illness until more advanced care is provided or the person recovers.
- **First aider** is a person who has successfully completed a nationally accredited training course or an equivalent level of training that has given them the competencies required to administer first aid.
- **First aid equipment** includes first aid kits and other equipment used to treat injuries and illnesses.
- **First aid facilities** include first aid rooms, health centres, clean water supplies and other facilities needed for administering first aid.
- **Low risk workplace** means a workplace where Workers are not exposed to hazards that could result in serious injury or illness such as Churches, offices, shops or libraries. Potential work-related injuries and illnesses requiring first aid would be minor in nature.

1.3 WHO HAS HEALTH AND SAFETY DUTIES IN RELATION TO FIRST AID?

The Church has the primary duty under the WHS Act to ensure, so far as is reasonably practicable, that people are not exposed to health and safety risks arising from the Workplace or its Activities. The requirements include:

- Providing first aid equipment and ensure each worker at the Workplace has access to the equipment.
- Ensuring access to facilities for the administration of first aid.
- Ensuring that an adequate number of Workers are trained to administer first aid at the Workplace or that Workers have access to an adequate number of other people who have been trained to administer first aid.

The Church conducting an Activity at a workplace not owned or managed by it, may not need to provide first aid equipment or facilities if these are already provided by the duty holder at the workplace and are adequate and easily accessible at the time of the Activity.

1.4 THE CHURCH, such as LT, has a duty to exercise due diligence to ensure that the Workplace and Activities comply with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the Workplace and Activities have and uses appropriate resources and processes to eliminate or minimise risks to health and safety.

1.5 WORKERS have a duty to take reasonable care for their own health and safety and must not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the Workplace, such as procedures for first aid and for reporting injuries and illnesses.

1.6 WHAT IS REQUIRED IN PROVIDING FIRST AID?

First aid requirements will vary from one workplace to the next, depending on the nature of the work, the type of hazards, the workplace size and location, as well as the number of people at the workplace. These factors must be taken into account when deciding what first aid arrangements need to be provided.

This Code provides information on using a risk management approach to tailor first aid that suits the circumstances of your workplace, while also providing guidance on the number of first aid kits, their contents and the number of trained first aiders that are appropriate for some types of workplaces.

The risk management approach involves the following four steps (summarised in Appendix A):

- Identifying hazards that could result in work-related injury or illness.
- Assessing the type, severity and likelihood of injuries and illness.
- Providing the appropriate first aid equipment, facilities and training.
- Reviewing your first aid requirements on a regular basis or as circumstances change.

Guidance on the general risk management process is available in the:

Code of Practice:
How to manage work health and safety risks.

1.7 CONSULTING YOUR WORKERS:

Consultation involves sharing of information, giving Workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Section 47:	A person conducting a business or undertaking must consult, so far as is reasonably practicable, with Workers who carry out work for the business or undertaking who are (or likely to be) directly affected by a work health and safety matter.
Section 48:	If the Workers are represented by a health and safety representative, the consultation must involve that representative.

You must consult your Workers when making decisions about what facilities are needed, including those required for administering first aid. Consultation should include:

- The number, location and contents of first aid kits and other equipment.
- The type of first aid facilities that may be needed.
- First aid procedures.
- The number of first aiders.

Consulting, co-operating and coordinating activities with Supervisors and Workers.

Section 46:	A Church undertaking and Activity must consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

1.8 JOINT OPERATIONS:

In the event the Church:

- Hosts and or manages an activity with another entity,.
- Shares a facility with another operator.
- Shares it workplace with another entity.

You have responsibility for health and safety together with other entities involved. In these situations, you should communicate with each other to find out who is doing what and work together in a co-operative and coordinated way so that all risks are eliminated or minimised so far as is reasonably practicable.

If you share your workplace with other entities that have Workers trained in administering first aid, you may be able to ensure that your Workers have access to them instead of training your own Workers. In these circumstances, it will be necessary to:

- Consult the other entities to determine what first aid arrangements are needed.
- Co-operate with each other in sharing first aid equipment and facilities.
- Co-ordinate access to the first aiders.

Further guidance on consultation is available in the:

Code of Practice: Work health and safety consultation, co-operation and co-ordination.

2. HOW TO DETERMINE FIRST AID REQUIREMENTS FOR YOUR WORKPLACE:

Regulation 42: When considering how to provide first aid, a person conducting a business or undertaking must consider all relevant matters including:

- The nature of the work being carried out at the workplace.
- The nature of the hazards at the workplace.
- The size, location and nature of the workplace.
- The number and composition of the Workers at the workplace.

2.1 THE NATURE OF THE WORK AND WORKPLACE HAZARDS:

Certain work environments or situations have greater risks of injury and illness due to the nature of work being undertaken and the nature of the hazards at the workplace. Accordingly, the Church will therefore need to provision for varying first aid arrangements. Although Churches are considered a low risk workplace, Churches may call upon Contractors to perform hazardous work and will need to check prior to any work being carried out that the contractor has the appropriate first aid equipment to deal with potential injuries.

Table 1: **Injuries associated with common workplace hazards that may require first aid:**

Hazard	Potential harm
Manual tasks	Overexertion can cause muscular strain.
Working at height	Slips, trips and falls can cause fractures, bruises, lacerations, dislocations, concussion.
Electricity	Potential ignition source could cause injuries from fire. Exposure to live electrical wires can cause shock, burns and cardiac arrest.
Machinery and equipment	Being hit by moving vehicles, or being caught by moving parts of machinery can cause fractures, amputation, bruises, lacerations, dislocations.
Hazardous chemicals	Toxic or corrosive chemicals may be inhaled, contact skin or eyes causing poisoning, chemical burns, irritation. Flammable chemicals could result in injuries from fire or explosion.
Extreme temperatures	Hot surfaces and materials can cause burns. Exposure to heat can cause heat stress and fatigue. Exposure to extreme cold can cause hypothermia and frost bite.
Radiation	Welding arc flashes, ionizing radiation and lasers can cause burns
Violence	Behaviours including intimidation and physical assault can cause nausea, shock and physical injuries
Biological	Infection, allergic reactions
Animals	Bites, stings, kicks, scratches

Records of injuries, illnesses, ‘near miss’ incidents and other information that has already been obtained to assist in

controlling risks at the workplace will be useful to make appropriate decisions about first aid.

You should check the safety data sheets (SDS) for any hazardous chemicals that are handled, used or stored at your workplace. The SDS provides information about the chemical, possible health effects, controls that may be used to reduce exposure and first aid requirements.

2.2 SIZE AND LOCATION OF THE WORKPLACE:

In relation to the size and location of the workplace, you should take into account:

- The distance between different work areas.
- The response times for emergency services.

First aid equipment and facilities should be located at convenient points and in areas where there is a higher risk of an injury or illness occurring.

A large workplace may require first aid to be available in more than one location if:

- Work is being carried out a long distance from emergency services.
- Small numbers of Workers are dispersed over a wide area.
- Access to a part of the workplace is difficult.
- The workplace has more than one floor level.
- An Activity is being conducted offsite.

Where there are separate work areas (for example, a number of buildings on a site or multiple floors in an office building), it may be appropriate to locate first aid facilities centrally and provide first aid kits in each work area. This may include portable first aid kits in motor vehicles and other separate work areas.

The distance of the workplace from ambulance services, hospital and medical centres should be taken into account when determining your first aid requirements. For example, if life-threatening injuries or illnesses could occur and timely access to emergency services cannot be assured, a person trained in more advanced first aid techniques (such as the provision of oxygen) will be needed.

Additional first aid considerations may be necessary for Workers in remote or isolated areas. For example, where access is difficult due to poor roads or weather conditions, arrangements may need to include aerial evacuation.

In minimising the risks to health and safety associated with remote or isolated work, you must provide a system of work that includes effective communication with the worker. This will assist in enabling an immediate response in an emergency. Further guidance about working in remote or isolated areas is available in the:

Code of Practice: *Managing the work environment and facilities*.

2.3 THE NUMBER AND COMPOSITION OF WORKERS AND OTHER PEOPLE:

When determining first aid needs, you should make provisions for all Workers, Attendees and projected visitors.

You should also consider:

- The particular needs of Workers and Attendees who have a disability or a known health concern.
- Particular needs when conducting Activities on or offsite.

Appendix B provides an example of how to determine first aid requirement:

3. FIRST AID EQUIPMENT, FACILITIES AND TRAINING:

The information provided in this chapter may be used as a guide to determine the appropriate first aid equipment, facilities, first aiders and procedures needed in various workplaces.

First aid equipment, facilities and first aiders must be accessible to Workers whenever they work, including those working night shifts or overtime.

3.1 FIRST AID KITS:

All Workers must be able to access a first aid kit. This will require at least one first aid kit to be provided at their workplace.

Contents:

The first aid kit should provide basic equipment for administering first aid for injuries including:

- Cuts, scratches, punctures, grazes and splinters.
- Muscular sprains and strains.
- Minor burns.
- Amputations and/or major bleeding wounds.
- Broken bones.
- Eye injuries.
- Shock.

The contents of first aid kits should also be based on a risk assessment. Where warranted, additional equipment will be required for:

- Allergies [due to prevalence it is recommended treatments be included in the basic kit].
- Bites from insects and other life forms [also consider preventative aids].
- Diabetes [due to prevalence it is recommended treatments be included in the basic kit].
- Heart Conditions.
- Serious burns, including chemical burns.
- Potential hazards when working off site or in remote locations – ie sun burn.
- Other known conditions that the Church agrees to provision for.

The recommended content of a typical first aid kit and information on additional equipment is provided in Appendix C.

3.2 DESIGN OF KITS:

First aid kits can be any size, shape or type to suit your workplace, but each kit should:

- Be large enough to contain all the items required.
- Be immediately identifiable with a white cross on green background that is prominently displayed on the outside.
- Contain a list of the contents for the kit which includes use by dates.
- Be made of material that will protect the contents from dust, moisture and contamination.

Note: A plastic tool boxes can act as a useful container.

3.3 LOCATION:

In the event of an injury or illness, quick access to the kit is vital. First aid kits should be kept in a prominent, accessible location and able to be retrieved promptly. Where the workplace occupies multiple floors, at least one kit should be located on each or every second floor.

Emergency floor plans displayed in the workplace should include the location of first aid kits.

A portable first aid kit should be provided in the vehicles of mobile Workers if that is their workplace (for example, couriers, taxi drivers, sales representatives, bus drivers and inspectors). These kits should be safely located so as not to become a projectile in the event of an accident.

3.4 RESTOCKING AND MAINTAINING KITS:

A Worker should be nominated to maintain the first aid kit (usually a first aider) and this person is to:

- Ensure the first aid kits are located as indicated on the emergency floor plans and are easy to access.

- Undertake regular checks and after each use to ensure the kit contains a complete set of the required items, any items used or that are close to or have exceeded their use by dates are replaced, items are in good condition and sterile products are sealed and have not been tampered with.

3.5 FIRST AID SIGNS:

Displaying well-recognised, standardised first aid signs will assist in easily locating first aid equipment and facilities. Further information on the design and use of signs is available in:

AS 1319 - Safety Signs for the Occupational Environment.

3.6 OTHER FIRST AID EQUIPMENT:

In addition to first aid kits, you should consider whether any other first aid equipment is necessary to treat the injuries or illnesses that could occur at your workplace.

Automated External Defibrillators:

Providing an automated external defibrillator can reduce the risk of fatality from cardiac arrest. It is a useful addition for workplaces where there is a risk of electrocution, people with relevant known heart conditions or visitors.

Automated external defibrillators are designed to be used by trained or untrained persons. They should be located in an area that is clearly visible, accessible and not exposed to extreme temperatures. They should be clearly signed and maintained according to the manufacturer's specifications.

Eye Wash and Shower Equipment:

It is unlikely a Church will need this equipment but if deemed necessary more information on the matter can found at:

AS 4775 – Emergency eyewash and shower equipment.

3.7 FIRST AID FACILITIES:

A risk assessment will help determine the type of first aid facilities needed. For example, a clean, quiet area within the workplace that affords privacy to an injured or ill person may be suitable and practicable for some workplaces.

Access to a telephone for contacting emergency services or an emergency call system should be provided as part of all first aid facilities.

3.8 FIRST AID ROOMS:

A first aid room should be established at the workplace if a risk assessment indicates that it would be difficult to administer appropriate first aid unless a first aid room is available.

For example, Workers who carry out work at workplaces where there is a higher risk of serious injury or illness occurring that would not only require immediate first aid, but also further treatment by an emergency service, may benefit from having access to a dedicated first aid room. A first aid room is recommended for:

- Low risk workplaces with 200 Workers or more – Churches may consider the number of Attendees in this figure.

The contents of a first aid room should suit the hazards that are specific to the workplace. The location and size of the room should allow easy access and movement of injured people who may need to be supported or moved by stretcher or wheelchair.

The following items should be provided in the room:

- A first aid kit appropriate for the workplace.
- Hygienic hand cleanser and disposable paper towels.
- An examination couch with waterproof surface and disposable sheets.
- An examination lamp with magnifier.
- A cupboard for storage.
- A container with disposable lining for soiled waste.
- A container for the safe disposal of sharps.
- A bowl or bucket (minimum two litres capacity).
- Electric power points.
- A chair and a table or desk.
- A telephone and/or emergency call system.
- The names and contact details of first aiders and emergency organisations.

A first aid room should:

- Be located within easy access to a sink with hot and cold water (where this is not provided in the room) and toilet facilities.
- Offer privacy via screening or a door.
- Be easily accessible to emergency services (minimum door width of 1 metre for stretcher access).
- Be well lit and ventilated.
- Have an appropriate floor area (14 square metres as a guide).
- Have an entrance that is clearly marked with first aid signage.

Maintaining a first aid room should be allocated to a trained occupational first aider, except where this room is part of a health centre or hospital.

3.9 FIRST AIDERS:

Regulation 42: A person conducting a business or undertaking must ensure that an adequate number of Workers are trained to administer first aid at the workplace or that Workers have access to an adequate number of other people who have been trained to administer first aid.

First aid in the workplace can be provided in a number of ways, the most economical way for a Church to provide a First Aider is to have one of its Workers trained to administer first aid and preferably a Worker that is present at the workplace most of the time.

The following ratios are recommended:

- Low risk workplaces – one first aider for every 50 Workers.

It is recommended Churches add the regular number of Attendees to this figure to determine the number of First aiders required. Ideally it is better to have more First aiders than the minimum to ensure a First Aider is always available.

3.10 TYPES OF FIRST AID TRAINING:

First aiders should hold nationally recognised certificates issued by a Registered Training Organisation (RTO) for the nationally endorsed first aid unit/s of competency. In low risk workplaces, first aiders are sufficiently trained if they can perform CPR and treat minor illnesses and injuries, which is covered under HLTAID003.

Basic course available are:

HLTAID003. Provide First Aid (PFA) – For Beginners.

HLTAID003. Provide First Aid (PFA) – Refresher Course.

Provides competencies required to recognise and respond to common life-threatening injuries or illnesses, including life-support using cardiopulmonary resuscitation (CPR), and to manage the casualty and incident until the arrival of medical or other assistance.

HLTAID002. Provide Basic Emergency Life Support.

Learn how to manage a First Aid scenario.

HLTAID004. Provide First Aid in an Education & Care Setting

Gain six (6) certifications including CPR, Asthma and Anaphylaxis and First Aid management contextualized to children.

HLTAID001. Provide CPR.

Learn Cardiopulmonary Resuscitation – what to do, when, how and how often.

HLTAID001. Challenge: CPR Provide Cardiopulmonary Resuscitation.

Refresher course. Demonstrate the knowledge and skills required to achieve competency in HLTAID001

First aiders should attend training on a regular basis to refresh their first aid knowledge and skills and to confirm their competence to provide first aid. Refresher training in CPR should be undertaken annually and first aid qualifications should be renewed every three years.

First aiders should attend training on a regular basis to refresh their first aid knowledge and skills and to confirm their competence to provide first aid. Refresher training in CPR should be undertaken annually and first aid qualifications should be renewed every three years.

3.11 ADVANCED TRAINING FOR FIRST AIDERS:

First aiders should also undertake additional first aid training to respond to specific situations at their workplace.

22300VIC [May be specific to Victoria but is nationally recognised]

Assess risk and manage anaphylaxis and administration of an adrenalin auto-injector.

22300VIC + 22282VIC [May be specific to Victoria but is nationally recognised]

Combines risk assessment and managing asthma and anaphylaxis together.

HLTAID005. Remote First Aid.

Learn what to do in a remote situation and when extended care is required. Requires proof of current PFA certificate

HLTAID006. Provide Advanced First Aid.

Learn how to manage an incident and other First aiders until medical assistance arrives. Requires proof of current Provide First Aid Certificate.

HLTAID007. Provide Advanced Resuscitation Techniques.

How to use an Automated External Defibrillator (AED) and Management of unconscious non-breathing person

HLTAID007. Provide Advanced First Aid + Provide Advanced Resuscitation Techniques.

Learn the skills and knowledge required to use specialized equipment in the provision of resuscitation.

3.12 FIRST AID PROCEDURES:

Preface - Where the church has a large number of attendees not fluent in English or able to read and comprehend it easily it is recommended that any information displayed be sub-texted in the written language of this group and a special training session be conducted for the group.

The Church should develop and implement first aid procedures to ensure that Workers and Attendee's have a clear understanding of first aid in their workplace.

The procedure should cover:

- Identifying where emergency procedure posters are displayed.
- Identifying where first aid kits are located within the workplace.
- Identifying where first aid kits for use off-site, in a vehicle or in remote locations are stored.
- Identifying the location of first aid facilities, such as first aid rooms if so equipped.
- Identifying the Workers certified to administer first aid and clarify that these First aiders are the only ones recognised by the Church to administer First Aid.
- Retaining a copy of all first aid certificates issued to First aiders and record the expiry date of the certificate.
- Ensuring the First aiders are physically identified on the emergency procedure poster, their mobile number displayed along with other relevant emergency details.
- Appointing one of the First aiders to check the first aid kits after each use to ensure the kit contains a complete set of the required items and any items used is replaced, that the items are in good condition and sterile products are sealed and have not been tampered with.
- Establishing an inspection routine to have the First Aider periodically check the first aid kits to ensure any item that has exceeded their use by date is replaced, that the items are in good condition and sterile products are sealed and have not been tampered with.
- Creating a form to record Workers and attendee's addresses and contact details, next of kin and contact details, any preexisting medical needs or conditions including allergies etc, other information pertinent to maintaining their health and welfare and provision for the person to consent to the Church to sharing this information with the First Aider [signature required on the consent form]. [*Information about a person's health must be kept confidential and only provided to First aiders with the worker's consent]*
- Creating a calendar of events, including those held onsite and offsite which records the First Aider is assigned to be on hand.
- Ensuring a process is in place to substitute First aiders not able to attend assign events with another.
- Ensuring First aiders certificates are current and that they receive refresher training when required and advanced training where needed.
- Creating forms and processes to report injuries and illnesses that occur in the workplace and with provision to record what treatment was applied.

Note: *Paid employees are covered under the relevant Workcover authority for their state which may have prescribed forms for recording such incidents – it is recommended these are used in preference.*

- Reporting injuries or illnesses incurred by paid employees in the workplace to the state's Workcover authority where required.
- Instituting practices to avoid exposure to blood and body substances – refer to Appendix D.
- Instituting processes to deal with a Worker or person too injured or ill to remain at the workplace.
- Providing access to counselling services to support First aiders and Workers after a serious workplace incident.

3.13 RECORD-KEEPING:

A record of any first aid treatment administered is to be retained by the First Aider and reported to the Church. The Church should review each incident with the First Aider to evaluate if processes in place were adequate to deal with the emergency and to minimize future occurrences.

First aid treatment records are subject to requirements under Health Records legislation.

3.14 PROCEDURES AND PLANS FOR MANAGING AN EMERGENCY:

Regulation 43: A person conducting a business or undertaking must ensure that an emergency plan is prepared for the workplace that provides procedures to respond effectively in an emergency.

The emergency procedures must include:

- An effective response to an emergency situation.
- Procedures for evacuating the workplace.
- Notification of emergency services at the earliest opportunity
- Medical treatment and assistance, and
- Effective communication between the person authorised by the person conducting the business or undertaking to co-ordinate the emergency response and all persons at the workplace.

You may incorporate your first aid procedures into your emergency planning procedures.

Emergency procedures should specify the role of first aiders according to their level of qualification and competence. In particular, first aiders should be instructed not to exceed their training and expertise in first aid. Workers, including supervisors, should be instructed not to direct first aiders to exceed their first aid training and expertise.

Further guidance on emergency plans and preparing emergency procedures is available in the:

Code of Practice: Managing the work environment and facilities.

4. REVIEWING YOUR FIRST AID REQUIREMENTS:

You should regularly review your first aid arrangements in consultation with your Workers to ensure they remain adequate and effective.

- Check that the people who have responsibilities under your first aid procedures are familiar with them.
- If the way work is performed is changed, or new work practices introduced, review first aid against a risk assessment to ensure the arrangements are still adequate.
- Organise a mock first aid emergency to check that first aid is effective. Check that kits and first aid rooms are accessible and suit the hazards that are unique to your workplace.
- If an incident has occurred that required first aid, evaluate the effectiveness of the first aid that was provided and make changes if necessary.
- If new information is obtained about a previously unidentified hazard, review the first aid measures you have put in place.

The following questions can assist you to review first aid and assess whether improvement is needed:

- **Do the first aid kits and modules suit the hazards at your workplace?**
- **Are there sufficient first aid kits or are more required required?**
- **Are first aid kits easy to identify and accessible to Workers?**
- **Are first aid kits routinely inspected and maintained?**
- **Is a first aid room required?**
- **Are first aid facilities well maintained?**

- Do the first aid kits and modules suit the hazards at your workplace?
- Do you have adequate first aiders or are more required?
- Do first aiders have the skills and competencies required of them and are their skills up-to-date?
- Do Workers and attendees know who are and how to access first aiders?
- Do Workers and attendees have access to first aiders at all times whilst at the workpalce?
- Do Workers and attendees know what to in an emergency situation?
- Is there easy access for emergency services, such as parking for an ambulance?

APPENDIX A – FIRST AID AND THE RISK MANAGEMENT PROCESS:

Step 1 – Identify potential causes of workplace injury and illness

- Does the nature of the work being carried out pose a hazard to people's health and safety?
- Have these hazards been identified in work that is being carried out?
- Has incident and injury data been reviewed?
- Has consultation with Workers and their health and safety representatives occurred?
- Is specialist or external assistance required?

Step 2 – Assess the risk of workplace injury and illness

- How often does a hazard have the potential to cause harm?
- What type of injuries would the hazards cause?
- How serious are the injuries?
- Does the number and composition of Workers and other people affect how first aid should be provided?
- Could the size and location of the workplace affect how first aid is provided?

Step 3 – What first aid is required?

First aiders

- How many first aiders are needed?
- What competencies do they require?
- What training do they need?

First aid kits & procedures

- What kits/modules are needed and where should they be located?
- Is other first aid equipment needed?
- Who is responsible for maintaining the kits?
- What procedures are needed for my workplace?

First aid facilities

- Is a first aid room or health centre required?

Step 4
Review first aid to ensure effectiveness

APPENDIX B – EXAMPLE OF A FIRST AID ASSESSMENT:

This assessment of first aid requirements is included as an example only. It does not reflect the consultative processes that must occur or detail the assessment of each identified hazard.

ABC Church	
Composition and Location of the Workplace	
Number of floors	2
Access between floors	Stairs
Nearest hospital	6 kilometres
Nearest medical or occupational health service	2 kilometres
Maximum time to hospital [ambulance]	30 minutes [peak time] 20 minutes [off-peak]
Maximum time to medical service	15 minutes
Workers and other persons at the workplace	
Number of Workers – Full Time	1
Number of Workers – Part Time	2
Number of Workers – Casual	1
Number of Workers – Volunteers	12
Number of Attendees at the main service	80 [average]
Number of Attendees – Activity 2 *[Name Activity]*	30 [average]
Number of Attendees – Activity 3 *[Name Activity]*	24 [average]
Number of Attendees – Activity 4 *[Name Activity]*	12 [average]
Number of Attendees – Activity 5 *[Name Activity]*	
Projected average visitor attendance at the main service	5
Projected use of Contractors	3 annually
Previous Injuries, illnesses and Incidents – Last 12 months [Record all observations and occurrences]	
Illnesses	Gastroenteritis x 2 – Flu x 6 – Colds 38
Injuries	Falls x 3 – Cuts x 2
Incidents	Fainted x 1
Nature of the work conducted and hazards at the workplace	

Location	**Hazard**	**Likelihood of occurrence and degree of harm**
• Kitchen	• Cuts and abrasions	• Low risk – degree of harm dependent upon severity
	• Falls on wet surfaces	• Low risk - degree of harm dependent upon severity
	• Food poisoning	• Low risk - degree of harm dependent upon severity
• Steps	• Falls	• Low risk - degree of harm dependent upon severity
• Noise	• Impact on hearing	• Low risk - degree of harm not measurable short term
• Workplace	• Cleaning chemicals	• Low risk - degree of harm dependent upon severity
	• Transmitted illnesses	• High risk - degree of harm dependent upon illness

ABC Church	
Chemicals – do labels specify a first aid response?	Yes
Hazardous Chemicals – are MSD sheets on record?	No
First Aid Requirements	
Number of first aiders required	3
Level of competencies for first aiders required	Level 1
Locations of emergency procedure posters	**Ground Floor** 1 x kit in foyer 1 x kit in kitchen **First Floor** 1 x kit in reception 1 x kit in kitchen
Number and location of first aid kits	**Ground Floor** 1 x kit in foyer 1 x kit in kitchen **First Floor** 1 x kit in reception 1 x kit in kitchen
Contents of first aid kits and modules	Standard workplace kit
Kit maintenance	Review after use Review every three months
Is a first aid room required?	If yes state where.

APPENDIX C: EXAMPLE OF CONTENTS FOR A FIRST AID KITS:

For most workplaces, a first aid kit should include the following items:

Item	Contents
	Quantity
Instructions for providing first aid – including Cardio-Pulmonary Resuscitation (CPR) flow chart	1
Note book and pen	1
Resuscitation face mask or face shield	1
Disposable nitrile examination gloves	5 pairs
Gauze pieces 7.5 x 7.5 cm, sterile (3 per pack)	5 packs
Saline (15 ml)	8
Wound cleaning wipe (single 1% Cetrimide BP)	10
Adhesive dressing strips – plastic or fabric (packet of 50)	1
Splinter probes (single use, disposable)	10
Tweezers/forceps	1
Antiseptic liquid/spray (50 ml)	1
Non-adherent wound dressing/pad 5 x 5 cm (small)	6
Non-adherent wound dressing/pad 7.5 x 10 cm (medium)	3
Non-adherent wound dressing/pad 10 x 10 cm (large)	1
Conforming cotton bandage, 5 cm width	3
Conforming cotton bandage, 7.5 cm width	3
Crepe bandage 10 cm (for serious bleeding and pressure application)	1
Scissors	1
Non-stretch, hypoallergenic adhesive tape – 2.5 cm wide roll	1
Safety pins (packet of 6)	1
BPC wound dressings No. 14, medium	1
BPC wound dressings No. 15, large	1
Dressing – Combine Pad 9 x 20 cm	1
Plastic bags - clip seal	1
Triangular bandage (calico or cotton minimum width 90 cm)	2
Emergency rescue blanket (for shock or hypothermia)	1
Eye pad (single use)	4
Access to 20 minutes of clean running water or (if this is not available) hydro gel (3.5 gm sachets)	5
Instant ice pack (e.g. for treatment of soft tissue injuries and some stings).	1

Warning: Medication, including analgesics such as paracetamol and aspirin, should not be included in first aid kits because of their potential to cause adverse health effects in some people including asthmatics, pregnant women and people with medical conditions. The supply of these medications may also be controlled by drugs and poisons laws. Workers requiring prescribed and over-the-counter medications should carry their own medication for their personal use as necessary.

Some types of workplaces may require additional items to treat specific types of injuries or illnesses.

Outdoor work:

If work is performed outside and there is a risk of insect or plant stings or snake bites, assess whether the following items should also be included in the first aid kit:

- A heavy duty crepe bandage
- Sting relief cream, gel or spray.

Remote work:

Where people work in remote locations, a first aid kit should include:

- A heavy duty crepe bandage 10 cm (for snake bites)
- Large clean sheeting (for covering burns)
- Thermal blanket (for treating shock)
- Whistle (for attracting attention)
- Torch/flashlight.

The appropriate contents will vary according to the nature of the work and its associated risks.

Burn injuries:

If your Workers are at risk of receiving burns, you should include the following items:

- Burn treatment instructions on two water-proof instruction cards: one for the first aid kit and the other to be located on the wall next to the emergency shower or water supply.
- Hydro gel (8 × 3.5 gram sachets)
- Hydro gel dressings
- Clean polythene sheets (small, medium and large)
- 7.5cm cotton conforming bandage.

APPENDIX D – STANDARD PRECAUTIONS FOR INFECTION CONTROL:

First aiders should take standard precautions to avoid becoming ill and exposing others to illness when handling blood or body substances. Standard precautions are work practices that are applied to all patients and their blood and body substances, regardless of their infectious status, to ensure a basic level of infection prevention and control. Standard precautions include hand hygiene, use of personal protective equipment, appropriate handling and disposal of sharps and waste, cleaning techniques and managing spills of blood and body substances.

Providing first aid safely

Before providing first aid to an injured or ill person, first aiders should assume they could be exposed to infection. First aiders should wash their hands with soap and water or apply alcohol-based hand rub before and after administering first aid. First aiders should also wear personal protective equipment to prevent contact with blood and body substances, including disposable gloves. Eye protection, a mask and protective clothing may also be necessary if splashes of blood or body substances are likely to occur.

You should establish procedures to avoid Workers becoming ill and exposing others to illness when handling blood or body substances. Procedures could include:

- Proper hand hygiene practices.
- How to handle and dispose of sharps.
- How to clean surfaces and reusable equipment.
- How to manage spills and handle and clean soiled laundry.
- How to handle and dispose of waste.
- When to use personal protective equipment, for example, using resuscitation masks for cardiopulmonary resuscitation.

First aiders should be aware of what to do if they have accidental contact with blood or body substances, a sharps injury or contact with a person known to have a contagious illness. Any part of the body that comes in contact with blood or body substances should be washed with soap and water immediately. Prompt medical advice should be obtained.

All first aiders should be offered hepatitis B virus vaccination.

Contaminated items

All items that are soiled with blood or body substances should be placed in plastic bags and tied securely. Waste disposal should comply with any state or local government requirements.

Sharps, including scissors and tweezers, that have become contaminated with blood or body substances should be disposed of in a rigid-walled, puncture-resistant sharps container by the person that used them. Guidance on the design, construction, colour and markings of sharps containers is provided in:

AS 4031 – Non-reusable containers for the collection of sharp medical items used in health care areas
AS/NZS 4261 – Reusable containers for the collection of sharp items used in human and animal medical applications.

If a first aider sustains a sharps injury or thinks they are at risk of infection from blood or bodily fluid contamination, they should seek prompt medical advice.

Cleaning spills

Cleaning should commence as soon as possible after an incident involving blood or body substances has occurred. First aiders should wear disposable gloves when cleaning spills and if splashes of blood or body substances may occur, additional protective equipment such as eye protection, plastic aprons and masks should be worn. Surfaces that have been contaminated with blood or body substances should be wiped with paper toweling and cleaned with warm soapy water. It is generally unnecessary to use sodium hypochlorite (chlorine bleach) for managing spills but it may be used in specific circumstances, for example if the surface is hard to clean.

Food Handling

Food Safety Practices and General Requirements - Standard 3.2.2

CONTENTS:

WHAT IS THIS STANDARD?

Standard 3.2.2 Food Safety Practices and General Requirements sets out specific food handling controls related to the receipt, storage, processing, display, packaging, transportation, disposal and recall of food. Other requirements relate to the skills and knowledge of food handlers and their supervisors, the health and hygiene of food handlers, and the cleaning, sanitising and maintenance of the food premises and equipment within the premises. If complied with, these requirements will ensure that food does not become unsafe or unsuitable.

WHO MUST COMPLY WITH THIS STANDARD?

Food businesses must comply with this standard unless they fall under the definition of 'primary food production'. FSANZ is developing Primary Production and Processing Standards separately. See the Primary Production under “The Code” for more information on developments.

FOOD HANDLERS MUST ALSO COMPLY WITH THE REQUIREMENTS THAT RELATE SPECIFICALLY TO FOOD HANDLERS.

Standard 3.2.2Food Safety Practices and General Requirements includes some exemptions for charities and community groups and also for temporary food businesses and businesses operating from a private home.

Charities and community groups that sell low risk food (such as cakes and jams) or hot food that is sold as soon as it is cooked (such as sausages and steaks) need not comply with the requirement that food handlers have skills and knowledge that apply to the work they are doing. Temporary food businesses and businesses operating from a private home can ask their local enforcement authority for an exemption from some of the hand washing requirements.

Charities and community organisations are exempt from the requirement if:

- There is no personal financial gain, that is, all the moneys raised are used for charitable or community purposes.
- The food sold is shelf-stable (for example, biscuits, cakes without cream, jams or chutneys).
- The food is consumed immediately after thorough cooking (for example, sausages sold straight from the barbecue).

This means that in the above circumstances the event organiser does not need to ensure that each food handler has the skills and knowledge to handle food safely. However, these food handlers must still comply with the health and hygiene requirements of the Food Safety Standards, see Fact Sheet 9 Health and hygiene for food handlers.

CHURCH NAME FOOD PREPARATION CODE OF PRACTICE:

Church life is often about community and as part of community we tend to share meals. The latest figures published by the Food Safety Information Council (as of 2014) estimated 4.1 million cases of food poisoning occur in Australia each year including 31,920 hospitalisations, 86 deaths and 1 million visits to doctors.

As Churches, we need to ensure we follow safe food handling practices to reduce the possibilities of adding to the above figures. According to the legislative bodies, depending on whether we sell food (fundraising) or not will influence what rules we need to conform to.

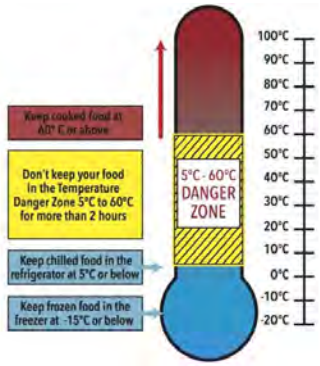
1 EATING AT CHURCH (no sale of food involved):

This is the most common situation that we find ourselves in as Churches. There are no official rules that we need to conform to but there are good practices that a Church should implement to reduce the risk of food poisoning.

1.1 Wash Hands - Our health is in our hands!

Clean hands will decrease the possibility of food poisoning and other diseases markedly. Remember the 20/20 rule: wash hands for 20 seconds with warm soapy water dry hands for 20 seconds before starting to cook repeat frequently especially after handling raw meats, or vegetables with visible soil.

Wash utensils and cutting boards with soap and warm water, and dry thoroughly, before handling different sorts of foods. This is particularly important when dealing with raw meats and vegetables. Disposable paper hand towels are preferable over clothe hand towels as clothe towels can hold and spread germs.



1.2 Store Food at correct temperature - Food that is meant to be kept chilled should be!

As soon as possible after purchase meat, poultry, dairy foods, vegetables, salad ingredients, etc should be refrigerated at or below 5ºC. Sounds easy but often food is left in hot cars or put in refrigerators that are not cold enough. A fridge thermometer should be used to make sure the temperature is at or below 5ºC. The temperature should be adjusted in line with changing seasons and the amount stored. Refrigerate leftovers promptly. Cooked food should be stored in covered containers and either put in the fridge to cool, or frozen immediately.

Frozen foods should be defrosted in the fridge NOT on the kitchen bench. If in doubt, throw it out!

1.3 Cook Food Properly - Properly cooking food minimises the risk of food poisoning:

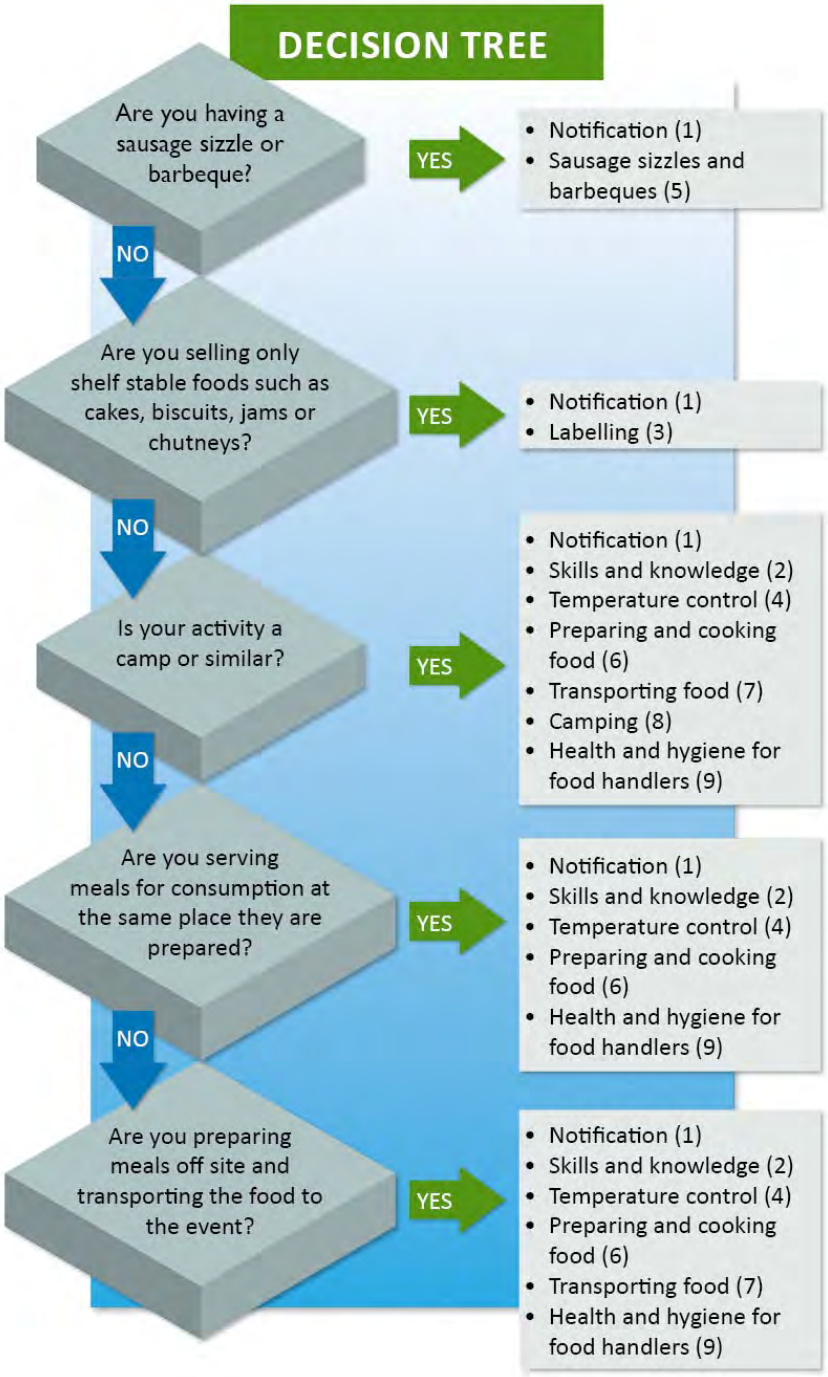
Cook chicken, minced or boned meats, hamburger, stuffed meats and sausages right through until they reach 75°C using a meat thermometer. Serve hot food steaming hot above 60ºC. Defrost frozen poultry and rolled and stuffed meats thoroughly before cooking. Always follow cooking instructions on packaged foods.

1.4 Don't Cross Contaminate foods - Cross-contamination is a major way for food borne diseases to spread:

To avoid cross contamination keep raw and cooked foods separate when storing and preparing. Food should be stored in covered containers in the fridge and put raw meats and poultry in the bottom of the fridge so the juices don't contaminate food on lower shelves. Don't put cooked meat back on the plate the raw meat was on.

2 FUND RAISING ACTIVITIES:

If your Church is selling food to raise funds, then you fall into the Food Standards policing area and need to conform to the following. A decision tree is shown below to help your Church conform to these requirements. The numbers listed in the diagram refer to the list of issues below that you need to take into account.



2.1 NOTIFICATION:

It is important that all businesses that make or sell food are known to enforcement agencies so that these agencies can ensure that food businesses are handling food safely. The food safety standards require all food businesses to provide the following information to the appropriate enforcement agency before any food handling begins:

a. Contact details for the business, including the name of the business and the name and address of the proprietor.

b. The nature of the business.

c. The location of all food premises that are within the jurisdiction of the enforcement agency.

Any changes must also be notified to the enforcement agency.

2.1 WHAT IS A FOOD BUSINESS?

The definition of a food business includes any activity where food is sold and specifically includes activities undertaken by charities and community Organisations.

2.2 WHAT IS THE ENFORCEMENT AGENCY?

If your business is located in a state, that is, New South Wales, Queensland, Victoria, Tasmania, South Australia or Western Australia, the enforcement agency is likely to be your local council. If your business is located in the Northern Territory or the Australian Capital Territory, the enforcement agency will be your local health department.

2.3 HOW TO NOTIFY:

Contact your local council or health department for information on how to notify. It may be easier for your charity or community organisation to nominate one person to deal with notification requirements. This person can then discuss the requirements with the local council or health department. Simplified notification arrangements may be in place for

businesses operated by charities and community organisations in your state or territory.

10. SKILLS AND KNOWLEDGE:

The food safety standards require proprietors of food businesses to ensure that food handlers and supervisors of food handlers have the skills and knowledge they need to handle food safely. This means that food handlers and supervisors must have the ' skills' to do those tasks that are necessary to ensure the safety of the food being handled and 'knowledge' of food safety and hygiene matters. For example, a food handler who is responsible for cooling cooked food must have the knowledge that the food must be cooled within a certain time to ensure it remains safe and the skills to do this (for example, by placing the food in shallow containers for cooling).

However, charities and community organisations are exempt from this requirement if:

- There is no personal financial gain, that is, all the moneys raised are used for charitable or community purposes.
- The food sold is shelf-stable (for example, biscuits, cakes without cream, jams or chutneys).
- The food is consumed immediately after thorough cooking (for example, sausages sold straight from the barbecue).

This means that in the above circumstances the event organiser does not need to ensure that each food handler has the skills and knowledge to handle food safely. However, these food handlers must still comply with the health and hygiene requirements of the Food Safety Standards. If the exemption does not apply, the event organiser should ensure that all food handlers and supervisors have the skills and knowledge they need to handle food safely. The exemption does not apply if the activity involves:

- Selling potentially hazardous foods that have not been cooked, such as salads or cream cakes.
- Selling potentially hazardous foods that are not served immediately after cooking, such as when food is pre-cooked and then heated for sale.

3.1 HOW TO ENSURE YOUR FOOD HANDLERS AND SUPERVISORS HAVE THE APPROPRIATE SKILLS AND KNOWLEDGE:

The event organiser should first determine if the food handlers and supervisors already have the skills and knowledge, as some may have previously received food safety training. If training is needed, the event organiser will need to work out the best way of providing this training.

Food handlers and supervisors are not required to attend formal training courses. Food handlers and supervisors can obtain the skills and knowledge they need by:

- Attending ' in-house' training programs.
- Reading food safety and hygiene information (such as these fact sheets).
- Following food safety procedures that relate to the activities of the charitable or community organisation.
- Attending food safety courses.

The event organiser can check whether food handlers and supervisors have the required knowledge and understand their obligations by talking to them or asking questions. Assessing skills is much harder but if, for example, food handlers are seen to do the right thing at all times when preparing food, it is reasonable to assume that they have the necessary skills. Event organisers should consider whether:

- All food handlers know how the business expects food to be handled.
- Food handlers understand their health and hygiene responsibilities (see Fact Sheet 9 Health and hygiene for food handlers).

- There is someone in the organisation who is responsible for ensuring that food handlers handle food safely.
- The necessary equipment is available so that food handlers can handle food safely, for example handwashing Facilities.

11. LABELLING - HOW TO LABEL AND PROVIDE INFORMATION ABOUT FOOD SOLD AT FUNDRAISING EVENTS:

Food sold at fundraising events is exempt from most labelling requirements. However, despite these general exemptions, certain information must always be provided when relevant. Other information must be provided if the customer requests it. Refer to Standard 1.2.1 – Application of Labelling and Other Information Requirements of the Australia New Zealand Food Standards Code.

4.1 INFORMATION THAT MUST BE ALWAYS PROVIDED:

If the food you are selling conforms to the list below then you'll need to conform to the Standard labelling requirements. This includes:

- Directions for use and/or storage of the food, if required for health or safety reasons - Refer to Standard 1.2.6 – Directions for Use and Storage
- Country of origin information – Refer to Standard 1.2.11 – Country of Origin Requirements. Country of origin information is required on some unpackaged foods sold at fund raising events in Australia, for example, pork, fish, fruit, and vegetables. This information can be provided on or in connection with the display of the food, for example, on a label on the food or on a sign with the food.
- Genetically modified foods - Refer to Standard 1.5.2 – Food Produced Using Gene Technology
- Irradiated foods -Refer to Standard 1.5.3 – Irradiation of Food
- Royal jelly - Refer to Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations.
- Certain fish, meat and meat products, and offal - Refer to Standard 2.2.1 – Meat and Meat Products, and Standard 2.2.3 – Fish and Fish Products
- Kava - Refer to Standard 2.6.3 – Kava

4.2 INFORMATION THAT MUST BE PROVIDED IF REQUESTED BY THE CUSTOMER:

There is also some basic information that you need to either provide if asked by the customer, or display with the food:

- Name of the food - Refer to Standard 1.2.2 – Food Identification Requirements.
- Declaration of allergenic substances - Refer to Standard 1.2.3 – Mandatory Warning and Advisory Statements and Declarations. A declaration of the following substances is required if present in the food (as these may cause allergic reactions in some people).
- Cereals containing gluten and their products (wheat, rye, barley, oats and spelt and their hybridised strains) (except in beer and spirits).
- Crustacea and their products.
- Egg and egg products.
- Fish and fish products (except for isinglass derived from swim bladders and used as clarifying agent in beer and wine).
- Milk and milk products.

- Peanuts and soybeans and their products.
- Tree nuts and sesame seeds and their products.
- Added sulphites in concentrations of 10 mg/kg or more.
- Advisory statements - Refer to clause 2 of Standard 1.2.3 for further information.
- Nutrition information panels - Refer to Standard 1.2.8 – Nutrition Information Requirements.

4.3 PROVIDING INFORMATION VOLUNTARILY:

Despite the exemption from a number of the labelling requirements, you may still decide to voluntarily label your food for fund raising events. In addition to the information that must be provided (as outlined above), you may also choose to provide additional information that would be useful to your customers, such as a list of ingredients, a contact name and address and a best-before date.

12. TEMPERATURE CONTROL OF FOOD:

The food safety standards specify that potentially hazardous foods must be stored, displayed and transported at safe temperatures and, where possible, prepared at safe temperatures. However, you can also use time, rather than temperature, to keep food safe. This method is explained under 'The 2 hour/4 hour guide'. Safe temperatures are 5°C or colder, or 60°C or hotter. Potentially hazardous food needs to be kept at these temperatures to prevent food-poisoning bacteria, which may be present in the food, from multiplying to dangerous levels. These bacteria can grow at temperatures between 5°C and 60°C, which is known as the temperature danger zone. The fastest rate of growth is at around 37°C, the temperature of the human body.

The food safety standards also require you to have a thermometer if you prepare, handle or sell potentially hazardous food. This will enable you to check that safe temperatures are being maintained.

5.1 WHAT FOODS ARE POTENTIALLY HAZARDOUS?

Foods normally considered to be potentially hazardous are:

- Raw meats, cooked meats and food containing meat, such as casseroles, curries, lasagne and meat pies.
- Dairy products and foods containing dairy products, such as milk, cream, custard and dairy-based desserts.
- Seafood (excluding live seafood) and food containing seafood, such as seafood salad.
- Processed fruits and vegetables, such as prepared salads and ready-to-eat fruit packs.
- Cooked rice and pasta.
- Processed foods containing eggs, beans, nuts or other protein-rich food, such as quiche and soya bean products.
- Foods that contain any of the above foods, such as sandwiches, rice salads and pasta salads.

5.2 COOLING FOODS:

If potentially hazardous foods have to be cooled, their temperature should be reduced as quickly as possible. The temperature should fall from 60°C to 21°C in less than two hours and be reduced to 5°C or colder in the next four hours. It is difficult to cool food within these times unless you put food into shallow containers.

5.3 KEEPING FOOD HOT:

If you are keeping food hot on cooktops, in ovens or in bain-marie units, the equipment needs to be set high enough to ensure that the food remains hot (60 ° C or hotter).

5.4 THE 2 HOUR / 4 HOUR GUIDE:

Although potentially hazardous food should be kept at 5°C or colder or 60°C or hotter wherever possible, this food can be safely between 5°C and 60°C provided it is between these temperatures for less than four hours. This is because it takes more than four hours for food-poisoning bacteria to grow to dangerous levels. The 2 hour/4 hour guide applies to ready- to-eat potentially hazardous food. It provides guidance on how long this type of food can be held safely at temperatures between 5°C and 60°C and what should happen to it after certain times. The times refer to the life of the food, including preparation and cooling, not just to display times, so remember to add up the total time that the food has been between 5°C and 60°C.

Total time limit between 5°C and 60°C	**What you should do**
Less than 2 hours	Refrigerate or use immediately
Between 2 hours and 4 hours	Use immediately
More than 4 hours	Throw out

13. SAUSAGE SIZZLES AND BBQS:

Sausage sizzles and barbecues are a popular way to raise money for charities and community organisations. They are often held outdoors to take advantage of Australia's good weather and open spaces. Provided you take some simple food safety precautions and sell freshly cooked food straight from the barbecue, the food should be safe.

6.1 PREPARING AND COOKING FOOD SAFELY:

Take the following precautions at sausage sizzles and barbecues to ensure that food is safe.

- Finish preparing raw meat before leaving for the site such as slicing, marinating or skewering.
- Pack raw meat into insulated boxes with ice bricks for transportation. Handle food with tongs or other equipment. Use separate equipment to handle raw and cooked meats. Hands should not be used unless absolutely necessary, and then handwashing facilities must be available. Hands must be washed after handling raw meats.
- Keep cooked meat and salads separate from raw meat at all times to prevent contamination.
- Cover food to protect it from contamination.
- Use clean and dry utensils for serving the food -never place cooked meat back on the trays that held the raw meat.
- Cook chicken, sausages and hamburgers until juices run clear - steaks can be cooked to preference.
- Throw left-over food away unless refrigeration equipment is available to rapidly cool the food.

6.2 DISPOSABLE UTENSILS:

Wherever possible, single-use (disposable) utensils such as knives, forks, plates and cups should be used and thrown away after use. These items should be kept covered until required and should be handled carefully to minimise any risk of contamination. Re-useable items such as mugs should not be used unless there are facilities available on-site to wash and sanitise them, or there are enough items for the duration of the event.

6.3 WATER:

If water is needed for hand washing or for washing up, a supply adequate to last the event must be provided. The water must be of drinkable quality. If using containers to transport water to the event, make sure that they are clean and have not been used to store chemicals. If you do not have access to hot water for washing up, make sure that you take enough utensils so that you can use separate utensils for the raw and the cooked food at the event.

6.4 HANDWASHING FACILITIES:

Unless a written exemption has been obtained from your local council or health authority, food handlers must wash their hands with warm running water. An exemption is only likely to be issued where enough water is not available for handwashing. In such circumstances the local council or health authority may permit the use of alternatives such as cleaning creams or gels, or sanitising wipes. If you have access to water, you should set up a temporary handwashing facility that provides running water. You can do this by using a large water container with a tap at its base. Another container, such as a bucket, should collect the waste water, to keep the site dry and clean. A supply of soap and paper towels must be provided at the handwashing facility so that handwashing can be undertaken properly. Supply a bin for used towels. This helps to keep the site tidy and prevents contamination from used towels.

14. PREPARING AND COOKING FOOD BUYING FOOD:

When you buy potentially hazardous food, place it in insulated bags or boxes for transporting to the preparation place if it is not close to your shops. Place your potentially hazardous food in a refrigerator or freezer as soon as possible.

Temperature control for a list of foods that are potentially hazardous.

7.1 PREPARING FOOD:

Before preparing food, make sure that hands, clothes, equipment and kitchen surfaces are clean. They will also need to be kept clean throughout food preparation. If your event is to be held outdoors with limited facilities, prepare the food in a kitchen and then transport it to the event. This does not mean that you need to cook food before you take it to the event but, for example, you should slice the raw meat ready for cooking. In fact, food that is freshly cooked at the event and served straight away, such as occurs with barbecues, has less chance of becoming unsafe than food that is pre- cooked and then taken to the event. Therefore, wherever possible, try to cook food at the event rather than pre-cooking it.

7.2 PREVENTING FOOD FROM BECOMING CONTAMINATED DURING PREPARATION:

The most important step to remember before preparing food is to wash and dry your hands thoroughly. Try to use tongs and other utensils when preparing food that will not be cooked before it is eaten, such as salads and sandwiches. You may prefer to wear gloves, but remember that they should be used for one task only (for example, breaking up a cooked chicken for sandwiches). When you start the next task, wear new gloves. Never use the same utensils for raw meats and foods that are ready to eat, such as cooked meats, unless they have been thoroughly cleaned, sanitised and dried.

Cooked food and other food that is ready to eat, such as salads, should always be placed on clean and dry serving dishes.

7.3 CLEANING AND SANITISING UTENSILS:

There are three steps needed to effectively clean and sanitise utensils:

- Washing.
- Sanitising.
- Drying.

Utensils such as cutting boards, bowls and knives need to be thoroughly washed in warm soapy water. After washing, the utensils should look clean and there should be no food or anything else visible on them. Effective cleaning will remove most of the dangerous bacteria present. Sanitising will then kill any that might remain. A dishwasher is very effective at sanitising if it has a hot wash and drying cycle. If you do not have a dishwasher, you will need to sanitise in a sink using a chemical sanitiser or very hot water. If using a chemical sanitiser such as a sodium hypochlorite - or quaternary ammonium - based solution, ensure that it can be safely used for sanitising eating, drinking and cooking utensils. Follow the instructions on the container carefully, as different sanitisers work in different ways. If you are using very hot water,

take extra care to avoid being scalded. All utensils must then be thoroughly dried before they are re-used. Air-drying is best but tea towels can be used if they are clean. If you are washing up at an event being held outdoors, make sure you have access to plenty of hot water. If hot water is not available, disposable eating and drinking utensils should be used and enough cooking utensils provided to last the duration of the event so that washing up is not necessary.

7.4 COOKING:

Always cook food thoroughly. Do not partially cook food and then warm it up later. Cook chicken, sausages and hamburgers until juices run clear - beef steaks can be cooked to preference. Cooking will reduce dangerous bacteria to safe levels if it is done properly. Remember that some food-poisoning bacteria can protect themselves from cooking and while they will not be present in enough numbers to make someone sick just after the food is cooked, they can start growing again if the cooked food is left at temperatures between 5°C and 60°C for too long. This is why cooling cooked food quickly is so important. Wherever possible, try to cook food as close to the time that you will be serving or selling it. For example, if you can, take the food to the event and cook it there. This reduces the chance of the food becoming contaminated after it has been cooked. It also means that there won't be enough time for food-poisoning bacteria to grow to dangerous levels on the cooked food before it is eaten. If it isn't practical to cook food at the event, you will need to pre-cook the food and transport it hot, or alternatively cook it, cool it and then transport it cold.

7.5 COOLING FOOD:

If you decide you want to pre-cook food and then cool it, you will need to ensure that the food is cooled rapidly to 5°C. If a large container of cooked food, for example a beef curry, is placed in a refrigerator for cooling, it can take as long as 24 hours to cool to 5°C. This is very dangerous as the centre of the food will remain warm and allow food-poisoning bacteria to grow to dangerous levels. The Food Safety Standards require cooked food to be cooled to 5°C within 6 hours. The food must be cooled from 60°C to 21°C within 2 hours and from 21°C to 5°C within a further 4 hours. Safe cooling can be achieved by:

- Removing the food from the stove top, oven or other heat source after it has cooked.
- Allowing the food to initially cool outside the refrigerator - but make sure it is placed in the refrigerator as soon as any part of it drops to a temperature of 60°C.
- Placing the food in shallow containers.

You will need to use your thermometer to check that the cooked food is being cooled within the 6-hour time limit.

7.6 REHEATING FOOD:

Cold food (which is to be served hot) will need to be quickly and thoroughly heated at the event until it is steaming hot and then kept hot until it is served. It is best to re-heat the food to a temperature of 70°C and hold the food at this temperature for at least two minutes. Use your thermometer to check that all of the food reaches at least this temperature.

7.7 KEEPING FOOD HOT:

Hot food will need to be kept hot (60 ° C or above) at the event. This could be achieved by using gas or electric appliances.

7.8 MAKING SANDWICHES:

Sandwiches are a popular product for community and fundraising events. Making them usually involves a lot of handling, which makes personal hygiene very important. Sandwiches are often filled with potentially hazardous food and should be handled and stored like any other high-risk food. They should be made fresh as close to the start of the event as possible. If this is not practical, they should kept in a refrigerator. Make sure that you have enough refrigerator space to store them safely - they may take up a lot of room. Because sandwiches require a lot of handling, the contact time with the person making them is increased. Because of this, it is very important that people who are ill do not make the

sandwiches. Sandwiches should be kept under temperature control when they are transported and displayed for sale.

Alternatively, you could use time, rather than temperature, to keep the sandwiches safe.

15. TRANSPORTING FOOD:

When you are transporting food, you need to consider two main food safety issues: keeping the food protected from contamination and, if the food is potentially hazardous, keeping it cold (5°C or colder) or hot (60°C or hotter).Protecting food from contamination

It is important to protect food from contamination by keeping it covered at all times. You can achieve this by using containers with lids or by applying plastic film over containers. Materials used to cover food should be suitable for food contact, to ensure that they do not contain any chemicals that could leach into the food. Aluminium foil, plastic film and clean paper may be used, and food should be completely covered. Packaged products should not need additional covering. Previously used materials and newspaper may contaminate food and should not be used.

8.1 TEMPERATURE CONTROL:

When potentially hazardous foods are transported they should be kept cold (5°C or colder) or hot (60°C or hotter) during the journey. Alternatively, you could use time, rather than temperature, to keep the food safe while it is being transported. If the journey is short, insulated containers may keep the food cold. If the journey is longer, you may need to use ice bricks to keep food cold and heat packs to keep food hot. Place only pre-heated or pre-cooled food in an insulated container, which should have a lid to help maintain safe temperatures. Insulated containers must be:

- In good condition and kept clean at all times.
- Used only for food.
- Kept away from other items such as chemicals, pet food, fuel and paint.
- Be filled as quickly as possible and closed as soon as they have been filled.
- Kept closed until immediately before the food is needed or is placed in other temperature-controlled equipment.

8.2 TRANSPORT CONSIDERATIONS:

- Containers of cool food should be placed in the coolest part of the vehicle.
- If the inside of the vehicle is air-conditioned, cold food may be transported better here rather than in the boot.
- Vehicles should be clean. If the vehicle is normally used for carrying pets or dirty equipment, the food carrying area should be thoroughly cleaned or lined to prevent any contamination. This may not be necessary if food is transported in an insulated container with a tightly fitting lid.
- The journey should be properly planned and should be kept as short as possible.
- When collecting ingredients, cold foods should be collected last and immediately placed in insulated containers or cool bags for transporting to the preparation facility.
- When taking prepared foods to a venue, pack the food into insulated boxes as your last job.
- When you arrive at the venue, make it your first job to unload any hot or cold food and place it in temperature controlled equipment.

8.3 CAMPING:

Preparing food for camps can be very challenging because facilities found in the home or commercial food premises are not generally available. You need to properly plan to ensure food safety. The camp should be memorable only for the outdoor experience and not the food poisoning outbreak that could occur. The five main considerations for keeping food

safe in camps are:

- Temperature control of food.
- Water supply.
- Handwashing facilities.
- Protecting food from contamination.
- Disposal of rubbish and waste water to prevent the contamination of food.

8.4 TEMPERATURE CONTROL:

The use of potentially hazardous foods when camping should be kept to a minimum unless the food can be kept cold (5°C or colder). Potentially hazardous foods support the growth of bacteria that can cause illness if large numbers of bacteria are present. If your camp is catering for a large number of people, it may be practical to hire gas-powered refrigeration equipment or to use similar facilities close to the campsite. If you only have limited equipment to keep food cold, buy potentially hazardous foods fresh daily and throw away any leftover food. You could also consider purchasing foods that are shelf-stable. These are foods that do not need temperature-controlled storage until they are opened. Examples include long-life milk (heat-treated in the carton); canned meats, fish and dairy products; and dried and dehydrated foods.

8.5 WATER SUPPLY:

A safe water supply is probably the most important requirement when camping because water is necessary for preparing and cooking food, cleaning utensils and helping to maintain personal hygiene. Your camp will need access to water of drinking quality. If water at the site is not suitable for drinking, it will need to be treated. The easiest way to treat this water is to boil it, but it has to be protected from contamination during cooling and storage. It is not always practical to boil the amount of water needed for food preparation and personal hygiene and you may wish to use chemical sterilisation. Always follow the manufacturers' instructions when using these chemicals. Water filters may also be an option but they can be slow and must be maintained in good working condition. You will also need to check with the supplier of the filter to find out whether it will be effective for your purposes. Filters should not be damaged and they may need to be cleaned or replaced regularly. Sources of drinking water, such as streams, wells and bores, should be protected. Access to the water collection point should be restricted and the area protected from animals and foreign matter. Use only clean containers that are specifically kept for drinking water. Store them carefully at all times, whether they are full or empty, with their lids fastened.

8.6 HANDWASHING:

For effective handwashing, clean warm running water is needed so that soap can function correctly and hands can be rinsed before they are dried. During camping, clean running water is not always readily available. A suitable alternative must be provided to ensure that hands do not contaminate food. You will need to obtain approval to use alternative handwashing methods from your local council or health authority. Alternative methods include the use of sterile wipes or cleaning gels. If you have access to water of drinking quality, you should set up a temporary handwashing facility that provides running water. You can do this by using a large water container with a tap at its base. Another container, such as a bucket, should collect the waste water, to keep the site dry and clean. A supply of soap and paper towels must be provided at the handwashing facilities so that handwashing can be undertaken properly. Supply a bin for used towels.

This helps to keep the site tidy and prevents contamination from used towels.

8.7 PROTECTING FOOD FROM CONTAMINATION:

It is very important to protect food from contamination. Bacteria cannot move from place to place by themselves they need help from poor food-handling practices. Poor food handling often allows bacteria to be transferred from a non-food

source to food, and from one food to another. The risk of contamination is often greater when camping because only basic equipment and amenities may be available. To protect food from contamination:

- Wash your hands before preparing or handling food.
- Keep food covered.
- Use separate utensils such as knives and chopping boards for different foods.
- Keep raw meat and raw fruits and vegetables well away from foods which are ready to eat, such as cooked meat and salads.
- Always thoroughly wash and dry your hands after handling raw meat.
- Thoroughly wash and dry eating and drinking utensils and store in a clean place.

8.8 DISPOSAL OF RUBBISH AND WASTE WATER:

The disposal of rubbish and waste water needs careful planning because they attract pests and contaminate food if they are not properly stored and disposed of. Rubbish should be bagged and tied, and kept well away from food preparation areas. There may be a designated disposal area for waste water at your camping site. Always use this - do not dispose of waste water in or near water sources.

16. HEALTH AND HYGIENE FOR FOOD HANDLERS:

The food safety standards contain requirements that apply only to food handlers. These requirements relate to health and hygiene and have been included to ensure that food handlers take steps to avoid contaminating food. A food handler is anyone who handles food or items that may come into contact with food, such as eating and drinking utensils. All food handlers are legally obliged to comply with the health and hygiene requirements set out in the food safety standards.

Food businesses must inform all food handlers of their health and hygiene obligations under the food safety standards. To help food businesses comply with the requirement, a copy of the health and hygiene requirements has been included as part of this fact sheet. You could ask all food handlers to sign a form, to say that they have received this fact sheet and the attached requirements. This is a good way of keeping checks on who has been advised. It also provides evidence that this requirement has been fulfilled. You may want to delegate this responsibility to one person in your organisation so that a consistent approach is taken and no volunteers are missed.

9.1 HEALTH REQUIREMENTS:

If you are ill or have an infection you can easily transfer harmful bacteria or viruses to food. Do not handle food if:

- You are ill with vomiting, diarrhea, fever or sore throat with fever.
- Your doctor has diagnosed that you have or carry a foodborne illness.

If you have volunteered for an event and then become ill with any of the above symptoms, let the event organiser know that you can no longer work. This is very important, no matter how short-staffed the event may be. Food handlers who are ill can easily make food unsafe. Not only is it against the law, it is not worth the risk. If you start to feel unwell while you are at an event, stop handling food and let the event organiser know immediately. If you have:

- Infected sores on your hands, arm or face.
- Any discharges from your ear, nose or eyes (such as a cold) you can continue to handle food provided you take extra precautions to prevent food being contaminated. For example, cover the skin sore or take medication to dry up the discharge. Hygiene requirements General hygiene.

Each food handler must take all precautions to ensure that food or surfaces that come in contact with food are not contaminated by his or her body or anything he or she is wearing. This includes hair, saliva, mucus, sweat, blood,

fingernails, clothes, jewellery or bandages. You are required to:

- Avoid handling ready-to-eat food such as salads and cooked food use tongs or other implements instead.
- Wear clean outer clothing.
- Make sure bandages and dressings on exposed parts of your body (such as the hands, arms or face) are covered with waterproof coverings.
- Not eat over uncovered food or equipment and utensils.
- Not sneeze, blow or cough over uncovered food or equipment and utensils.
- Not spit, smoke or chew tobacco where food is handled.

9.2 HANDWASHING:

The most important measure to protect food from contamination is proper handwashing because clean and dry hands limit the transfer of harmful organisms to food. The Food Safety Standards require food handlers to wash their hands whenever hands are likely to be a source of contamination of food, including:

- Before handling food.
- Between handling raw food and food that is ready to eat, such as cooked food and salads.
- After using the toilet.
- After smoking, coughing, sneezing, blowing the nose, eating or drinking.
- After touching hair, scalp, mouth, nose or ear canal.
- After handling rubbish and other waste.

There are five steps that should be followed when washing hands. These are:

- Wet hands under warm running water.
- Soap hands, lathering well.
- Rub thoroughly, including the wrists and between the fingers.
- Rinse in clean water.
- Dry thoroughly on paper towel, leaving no moisture on the hands.

Below is an extract from the Safe Food Australia Policy

DIVISION 4 - HEALTH AND HYGIENE REQUIREMENTS SUBDIVISION 1 - REQUIREMENTS FOR FOOD HANDLERS

17 GENERAL REQUIREMENT:

A food handler must take all reasonable measures not to handle food or surfaces likely to come into contact with food in a way that is likely to compromise the safety and suitability of food.

18 HEALTH OF FOOD HANDLERS:

- A food handler who has a symptom that indicates the handler may be suffering from a food-borne disease, or knows he or she is suffering from a food-borne disease, or is a carrier of a food-borne disease, must, if at work:
    - report that he or she is or may be suffering from the disease, or knows that he or she is carrying the disease,

to his or her supervisor, as the case may be;

- not engage in any handling of food where there is a reasonable likelihood of food contamination as a result of the disease; and
- if continuing to engage in other work on the food premises - take all practicable measures to prevent food from being contaminated as a result of the disease.

- A food handler who suffers from a condition must, if at work:
  - if there is a reasonable likelihood of food contamination as a result of suffering the condition - report that he or she is suffering from the condition to his or her supervisor; and
  - if continuing to engage in the handling of food or other work - take all practicable measures to prevent food being contaminated as a result of the condition.

- A food handler must notify his or her supervisor if the food handler knows or suspects that he or she may have contaminated food whilst handling food.

19 HYGIENE OF FOOD HANDLERS:

- A food handler must, when engaging in any food handling operation:
  - take all practicable measures to ensure his or her body, anything from his or her body, and anything he or she is wearing does not contaminate food or surfaces likely to come into contact with food;
  - take all practicable measures to prevent unnecessary contact with ready-to-eat food;
  - ensure outer clothing is of a level of cleanliness that is appropriate for the handling of food that is being conducted.
  - only use on exposed parts of his or her body bandages and dressings that are completely covered with a waterproofed covering;
  - not eat over unprotected food or surfaces likely to come into contact with food;
  - not sneeze, blow or cough over unprotected food or surfaces likely to come into contact with food;
  - not spit, smoke or use tobacco or similar preparations in areas in which food is handled; and
  - not urinate or defecate except in a toilet.

- A food handler must wash his or her hands in accordance with subclause (4):
  - whenever his or her hands are likely to be a source of contamination of food;
  - immediately before working with ready-to-eat food after handling raw food; and
  - immediately after using the toilet.

- A food handler must, when engaging in a food handling operation that involves unprotected food or surfaces likely to come into contact with food, wash his or her hands in accordance with subclause (4):
  - before commencing or re-commencing handling food;
  - immediately after smoking, coughing, sneezing, using a handkerchief or disposable tissue, eating, drinking or using tobacco or similar substances; and
  - after touching his or her hair, scalp or a body opening.
  - A food handler must, whenever washing his or her hands:

- use the hand washing facilities provided;
- thoroughly clean his or her hands using soap or other effective means, and warm running water; and
- thoroughly dry his or her hands on a single use towel or in another way that is not likely to transfer pathogenic micro-organisms to the hands.

- A food handler who handles food at temporary food premises does not have to clean his or her hands with warm running water, or comply with paragraph (4)(c), if the appropriate enforcement agency has provided the food business operating from the temporary food premises with approval in writing for this purpose.

20 SELLING FOOD AS A BUSINESS:

If your Church runs a café or sells food as a business in the community, then you need to check and ensure you are registered with the local authority and conform to the current legislation for food handling and associated requirements.

Grounds Equipment

LAWNMOWER, EDGER'S, TRIMMERS AND BLOWERS GUIDES

CONTENTS

1 SELECTION:

This type of equipment is available with vast array of power sources and capabilities. When purchasing equipment of this nature it is recommended that a qualified person be consulted to determine the most appropriate for the needs of the Church.

2 POWER SOURCES:

Equipment such as these can be unpowered [lawn mowers] and powered. Power sources include:

a. Manual:

Some of lawn mowers and trimmers are manually powered ie by hand. The advantage is they emit no noise or exhaust fumes however, usage is slow by comparison to their powered alternatives.

b. Petrol:

Two stroke – Some of this type of equipment, epically older lawn mowers and some new ones, edger's, trimmers and blowers are powered by a fuel/oil mixture. The mixture can be purchased or mixed by an experienced person using petrol and a light oil, however it must be mixed in the correct ratio as, incorrect ratios could damage the motor. Refer owner's manual for information.

Four Stroke – Most modern lawn mowers, especially the more powerful ones, and some of the other equipment, although rare, are powered purely by petrol, as the lubricating oil for the motor is separately contained in the sump [oil pan].

c. Electrical:

240 Volt – Although very rare, some older lawn motors were powered by a 240V motor. The electrical current being supplied from the mains via an electrical cord. Although quiet and emitting no exhaust fumes, they are especially dangerous to operate and not recommended for use.

Battery Powered – Becoming increasing popular, this type of equipment can be powered by a rechargeable battery. The advantage is they emit no noise or exhaust fumes from the motor, there is no dangerous electrical cord to concern the operator and the battery can be recharged. Batteries are available with a variety of power outputs 12V, 24V and up to 48V, which may increase in time. Generally higher output devices are more powerful and will power the device longer.

3 SAFETY OPERATING INSTRUCTIONS:

General:

Equipment of this nature must be operated by a trained and authorised employee of the Church in accordance with the manufactures terms of use and instructions. Equipment must not be altered or modified without authorisation.

- Check the general condition of the equipment. Check with Contact Officer if unsure.
- Check lawn mower blades are sharp, secure and not damaged. Check with Contact Officer if unsure.
- Ensure all safety guards are correctly fitted.
- Check all the condition and operation of all switches, controls and emergency stops before use.
- Refuel petrol powered equipment when the device is cool.
    - Use only approved fuel containers. Do NOT decant fuel to unmarked containers.
    - Avoid all sources of ignition when refueling.
    - Wash hands after handling fuel and oil.
- Check area to be mowed for possible debris that may be picked up and thrown.
- Avoid mowing areas where there is potential for endangering people and animals.
- Maintain a proper balance and secure footing when starting the mower.
- Always mow in a forward direction.
- Mow sloping surfaces up and down not sideways to the fall and avoid contact with a mower that may slip.
- Operate all equipment at speeds that ensures control over unexpected hazards.
- Wear hearing and eye protection and ensure anyone assisting is also wearing them.
- Wear a broad brim hat and apply sunscreen on high UV days.
- Keep hands/fingers away from mover blades and moving parts.
- Confine loose clothing and long hair.
- Minimize stooping and bending when using equipment.
- Never leave the equipment running and unattended.
- Never operate a petrol powered equipment in confined areas. Long term inhalation of exhaust fumes, carbon monoxide, can lead to death.
- After use and allowing a suitable period for the equipment to cool, clean the equipment of all debris.
- Report all equipment faults and hazards to the supervisor.

CAUTION - Beware of contact with blade; flying objects and debris; mowing over debris and other objects; loud noise; UV hazards; and fire hazards caused by fuel.

4 MAINTENANCE:

Ensure all equipment is maintained in accordance with the manufacture's maintenance instructions.

5 STORAGE:

Ensure all equipment is stored in a cool and dry locked cupboard, room or external building.

#Hazardous Tasks

HAZARDOUS MANUAL TASKS

Code of Practice - FEBRUARY 2016

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FOREWORD

This Code of Practice on how to identify hazardous manual tasks and control the risks of workers being affected by musculoskeletal disorders is an approved code of practice under Section 274 of the Work Health and Safety Act.

An approved code of practice is a practical guide to achieving the standards of health, safety and welfare required under the Work Health and Safety Act (the WHS Act) and the Work Health and Safety Regulations (the Regulations).

A code of practice applies to anyone who has a duty of care in the circumstances described in the code. In most cases, following an approved code of practice would achieve compliance with the health and safety duties in the WHS Act, in relation to the subject matter of the code. Like regulations, codes of practice deal with particular issues and do not cover all hazards or risks that may arise. The health and safety duties require duty holders to consider all risks associated with work, not only those for which regulations and codes of practice exist.

Codes of practice are admissible in court proceedings under the WHS Act and Regulations. Courts may regard a code of practice as evidence of what is known about a hazard, risk or control and may rely on the code in determining what is reasonably practicable in the circumstances to which the code relates.

Compliance with the WHS Act and Regulations may be achieved by following another method, such as a technical or an industry standard, if it provides an equivalent or higher standard of work health and safety than the code.

An inspector may refer to an approved code of practice when issuing an improvement or prohibition notice.

This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health

and Safety for adoption by the Commonwealth, state and territory governments.

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers Council on 10 August 2011.

SCOPE AND APPLICATION:

This Code provides practical guidance to persons conducting a business or undertaking on how to manage the risk of musculoskeletal disorders arising from hazardous manual tasks in the workplace. It applies to all types of work and all workplaces where manual tasks are carried out.

This Code explains how to identify hazardous manual tasks, assess the risks of musculoskeletal disorders and eliminate or minimise those risks. This guidance is also relevant for designers, manufacturers, importers or suppliers of equipment, materials and tools used for work, as well as designers of workplaces where manual tasks are carried out.

HOW TO USE THIS CODE OF PRACTICE:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to provisions of the WHS Act and Regulations which set out the legal requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION:

Most jobs involve carrying out some type of manual task using the body to move or hold an object, people or animals. Manual tasks cover a wide range of activities including stacking shelves, working on a conveyor line and entering data into a computer.

Some manual tasks are hazardous and may cause musculoskeletal disorders. These are the most common workplace injuries across Australia.

1.1 WHAT IS A MUSCULOSKELETAL DISORDER (MSD)?

A musculoskeletal disorder, as defined in the WHS Regulations, means an injury to, or a disease of, the musculoskeletal system, whether occurring suddenly or over time. It does not include an injury caused by crushing, entrapment (such as fractures and dislocations) or cutting resulting from the mechanical operation of plant.

MSDs may include conditions such as:

- Sprains and strains of muscles, ligaments and tendons.
- Back injuries, including damage to the muscles, tendons, ligaments, spinal discs, nerves, joints and bones.
- Joint and bone injuries or degeneration, including injuries to the shoulder, elbow, wrist, hip, knee, ankle, hands and feet.
- Nerve injuries or compression (e.g. carpal tunnel syndrome).
- Muscular and vascular disorders as a result of hand-arm vibration.
- Soft tissue hernias.
- Chronic pain.

MSDs occur in two ways:

- Gradual wear and tear to joints, ligaments, muscles and inter-vertebral discs caused by repeated or continuous use of the same body parts, including static body positions.

- Sudden damage caused by strenuous activity, or unexpected movements such as when loads being handled move or change position suddenly.

Injuries can also occur due to a combination of these mechanisms, for example, body tissue that has been weakened by cumulative damage may be vulnerable to sudden injury by lower forces.

1.2 WHAT IS A HAZARDOUS MANUAL TASK?

A hazardous manual task, as defined in the WHS Regulations, means a task that requires a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any person, animal or thing involving one or more of the following:

- Repetitive or sustained force.
- High or sudden force.
- Repetitive movement.
- Sustained or awkward posture.
- Exposure to vibration.

These factors (known as characteristics of a hazardous manual task) directly stress the body and can lead to injury.

1.3 WHO HAS HEALTH AND SAFETY DUTIES IN RELATION TO HAZARDOUS MANUAL TASKS?

A person conducting a business or undertaking has the primary duty to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

The WHS Regulations include specific obligations for persons conducting a business or undertaking to manage the risk of a musculoskeletal disorder associated with a hazardous manual task.

Designers, manufacturers, importers and suppliers of plant and structures that are likely to be handled or used during or as part of a manual task have an important role in eliminating or minimising the risks of MSDs, which are often associated with the poor design and layout of work areas as well as the design of equipment, tools, packaging and materials. They must ensure, so far as is reasonably practicable, that the plant or structure they design, manufacture, import or supply is without risks to health and safety (see Chapter 6 of this Code for further guidance).

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks that arise from hazardous manual tasks.

Workers have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace.

1.4 WHAT IS REQUIRED TO MANAGE THE RISK OF MUSCULOSKELETAL DISORDERS?

Regulation 60: A person conducting a business or undertaking must manage risks to health and safety relating to a musculoskeletal disorder associated with a hazardous manual task.

Regulation 34-38: In order to manage risk under the WHS Regulations, a duty holder must:

- Identify reasonably foreseeable hazards that could give rise to the risk
- Eliminate the risk so far as is reasonably practicable
- If it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of control
- Maintain the implemented control measure so that it remains effective

- review, and if necessary revise, risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

This Code provides guidance on how to manage the risks associated with those manual tasks that have the potential to cause MSDs by following a systematic process that involves:

- Identifying manual tasks that are hazardous.
- If necessary, assessing the risks of MSDs associated with the hazardous manual task.
- Implementing suitable risk control measures.
- Reviewing the effectiveness of control measures.

A summary of this process in relation to manual tasks is at Appendix A. Guidance on the general risk management process is available in the Code of Practice: How to Manage Work Health and Safety Risks.

Consulting your workers:

Section 47: The person conducting the business or undertaking must consult, so far as is reasonably practicable, with workers who carry out work for the business or undertaking who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Consultation with workers and their health and safety representatives is necessary at each step of the risk management process. Your workers know which tools and activities contribute to their discomfort and may have practical suggestions or potential solutions.

It is important to consult your workers as early as possible when planning to:

- Introduce new tasks or change existing tasks.
- Select new equipment.
- Refurbish, renovate or redesign existing workplaces.
- Carry out work in new environments.

You should also encourage your workers to report problems with manual tasks and signs of discomfort immediately so that risks can be managed before an injury occurs.

Consulting, co-operating and coordinating activities with other duty holders:

Section 46: If more than one person has a duty in relation to the same matter, each person with the duty must, so far as is reasonably practicable, consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter.

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved in the same activities or who share the same workplace. In these situations, you must exchange information to find out who is doing what and work together in a co-operative and coordinated way so that all risks are eliminated or minimised so far as is reasonably practicable.

For example, if a supplier visits your workplace to deliver goods, you should discuss with the supplier how the goods will be handled at your workplace, whether there are any environmental or other factors that may increase the risk (for example, using a flight of stairs while handling large boxes) and what you each will do to control any risk of injury.

Further guidance is available in the:

Code of Practice: *Work Health and Safety Consultation, Co-operation and Co-ordination*.

2. IDENTIFYING HAZARDOUS MANUAL TASKS

The first step in managing risks from carrying out manual tasks is to identify those tasks that have the potential to cause MSDs. Hazards that arise from manual tasks generally involve interaction between a worker and:

- The work tasks and how they are performed.
- The tools, equipment and objects handled.
- The physical work environment.

2.1 HOW TO IDENTIFY HAZARDOUS MANUAL TASKS:

Consult your workers:

Workers who perform manual tasks can provide valuable information about discomfort, muscular aches and pains that can signal potential hazards. For example, you could ask workers to identify tasks that:

- Are difficult to do (or appear harder than they should be).
- Are very tiring (muscle fatigue reduces work capacity).
- Are awkward or dangerous (for example, difficulty controlling loads).
- Cause discomfort.

A discomfort survey that may be used is at Appendix B.

Review available information:

Records of workplace injuries and incidents, inspection reports and any workers compensation claims made for MSDs should be reviewed to help identify which manual tasks may cause harm. However, not all hazardous manual tasks will be associated with reported incidents, therefore it is important to gather additional information.

Information and advice about hazardous manual tasks and risks relevant to particular industries and work activities is available from regulators, industry associations, unions, technical specialists and safety consultants.

Look for trends

You may be able to identify trends or common problems from the information you collect. Trends may show that certain tasks have more characteristics that make them hazardous or that some characteristics are more common in certain jobs. Trends may also show that workers in a particular location are exposed to more hazardous manual tasks than in other areas and this could indicate a problem with the design and layout of that work area or the way work is carried out there.

These trends may help in deciding which manual tasks should be addressed as a priority.

Observe manual tasks:

Hazardous manual tasks can also be identified by looking at how people actually work and focusing on their postures and movements. A manual task is hazardous if it involves any of the following characteristics (described in Section 2.2):

- Repetitive or sustained force.
- High or sudden force.
- Repetitive movement.
- Sustained and/or awkward posture.

- Exposure to vibration.

Things to look out for include:

- Any changes that have resulted in new manual tasks or a changed environment.
- Tasks involving tools, machinery or equipment that do not work properly or are difficult to use.
- If workers have made improvisations to tasks to avoid discomfort (such as stacking mats or flattened cartons to stand on).

The hazard identification worksheet in Appendix C may be used to record your findings.

2.2 CHARACTERISTICS OF HAZARDOUS MANUAL TASKS:

Force is the amount of muscular effort required to perform a movement or task. Forceful muscular exertions overload muscles, tendons, joints and discs and are associated with most MSDs.		
Repetitive force - using force repeatedly over a period of time to move or support an object	Examples of repetitive force include: • lifting and stacking goods onto a pallet • gripping and handling bricks when bricklaying (Figure 1) • repetitively pressing components with the thumbs or other part of the hand to assemble an item • prolonged application of therapeutic massage treatments • removing splinting material from patients using shears.	**Figure 1** 
Sustained force - occurs when force is applied continually over a period of time.	Examples of sustained force include: • pushing or pulling a trolley around hospital wards (Figure 2) • holding down a trigger to operate a power tool • supporting a plaster sheet while fixing it to a ceiling • carrying objects over long distances • supporting, positioning or stabilising a patient's limb during surgery or when applying splinting or casting material	**Figure 2** 

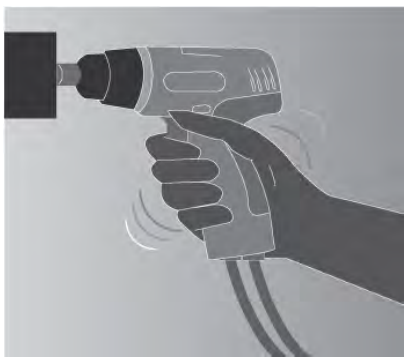
<table>
<tr><td colspan="3">Force is the amount of muscular effort required to perform a movement or task. Forceful muscular exertions overload muscles, tendons, joints and discs and are associated with most MSDs.</td></tr>
<tr><td rowspan="2">High force – may be exerted by the back, arm or leg muscles or by the hands and fingers.

High force occurs in any tasks that:
a worker describes as very demanding physically
a worker needs help to do because of the effort it requires
require a stronger person or two persons to do the task.</td><td>Examples of high force include:
Lifting, lowering or carrying a heavy object
Lifting, lowering or carrying an object that cannot be positioned close to the body
pushing or pulling an object that is hard to move or stop
restraining a person or animal.(Figure 3)</td><td>Figure 3
  </td></tr>
<tr><td>Examples of high force using the hands and fingers include:
using a finger-grip, a pinch-grip or an open-handed grip to handle a heavy or large load
operating hand tools with tight squeeze grips(Figure 4)
gripping small instruments with high force, for example, a dental hygienist cleaning teeth.</td><td>Figure 4
  </td></tr>
<tr><td>Sudden force – jerky or unexpected movements while handling an item or load are particularly hazardous because the body must suddenly adapt to the changing force.

Tasks where force is applied suddenly and with speed also generates high force.</td><td>Examples of sudden force include:
impact recoil of a large nail gun
throwing or catching objects
cutting reinforcement steel with large bolt cutters
carrying an unbalanced or unstable load such as bagged stock feed pellets that suddenly moves (Figure 5)
handling frightened or resistant animals
handling patients who suddenly resist or no longer assist during the handling procedure.</td><td>Figure 5
  </td></tr>
</table>

Movement		
Repetitive movement – using the same parts of the body to repeat similar movements over a period of time.	Examples of repetitive movement include: • painting • lifting goods from a conveyor belt and packing them in a carton • typing and other keyboard tasks(Figure 6) • repeatedly reaching for and assembling components in electronics manufacturing • using a socket and ratchet or spanner to unscrew long bolts.	**Figure 6** 

Posture An ideal posture is one where the trunk and head are upright and forward facing, the arms are by the side of the body, the forearms are either hanging straight or at right angles to the upper arm, and the hand is in the handshake position. Postures that are both awkward and sustained are particularly hazardous.		
Sustained posture – where part of or the whole body is kept in the same position for a prolonged period.	**Examples of sustained posture include:** • supporting plasterboard sheeting while it is nailed into place (Figure 7) • continually standing with weight mainly on one leg while operating a power press with foot pedal controls.	**Figure 7** 
Awkward posture – where any part of the body is in an uncomfortable or unnatural position, such as: • postures that are unbalanced or asymmetrical • postures that require extreme joint angles or bending and twisting.	**Examples of awkward posture include**: • squatting while servicing plant or a vehicle • working with arms overhead • bending over a desk or table • using a hand tool that causes the wrist to be bent to the side	**Figure 8** 

	• kneeling while trowelling concrete or laying carpet • bending the neck or back to the side to see around bulky items pushed on a trolley. (Figure 8)	
Vibration There are two common forms of vibration according to contact points between the body and the source:		
Whole body vibration occurs when vibration is transmitted through the whole body, usually via a supporting surface, such as a seat or the floor in heavy vehicles or machinery. This may result in lower back pain, degeneration of the lumbar vertebrae and disc herniation.	**Examples of whole body vibration include:** • operating mobile plant such as heavy earth moving machinery • driving a vehicle over rough terrain.(Figure 9)	**Figure 9** 
Hand-arm vibration occurs when vibration is transferred through a vibrating tool, steering wheel or controls in heavy machinery to the hand and arm. This can disrupt blood circulation in the hand and forearm and damage nerves and tendons. Localised vibration contributes to 'vibration-induced white finger' and 'carpal tunnel syndrome' through the gripping force needed to hold the vibrating tools (the tighter the grip, the more vibration is absorbed) and the repetitive shock loads of some tools.	**Examples of hand-arm vibration include:** • using impact wrenches, chainsaws, jackhammers, grinders, drills or vibrating compacting plates (Figure10-11) • using needle guns in de-rusting metal.	**Figure 10-11**  

3. ASSESSING THE RISKS:

A risk assessment involves examining the characteristics of the hazardous manual task in more detail to assess whether the forces, movements and postures are undertaken in such a way that they give rise to the risk of MSDs.

3.1 WHEN SHOULD A RISK ASSESSMENT BE CONDUCTED?

You should carry out a risk assessment for any manual tasks that you have identified as being hazardous, unless the risk is well-known and you know how to control it. A risk assessment can help you determine:

- Which postures, movements and forces of the task pose a risk.
- Where during the task they pose a risk.
- Why they are occurring.
- What needs to be fixed.

3.2 HOW TO DO A RISK ASSESSMENT FOR HAZARDOUS MANUAL TASKS:

Identify who should participate in the risk assessment, for example those workers who do the task or their health and safety representative, and management who have control over how the task is done. Describe the task and area where the manual task is performed. Note which body parts are likely to be at risk of injury, then work through the assessment together to determine which risk factors pose a risk and why the risk exists.

The whole task should be examined, although it may help to look at the task in stages to identify all of the risk factors. For example, the task of putting stationery items away in a storage cabinet may involve the following steps:

- Collecting boxes of stationery supplies from the delivery dock – handling boxes that are bulky may increase the risks associated with this task
- Transporting stationery supplies to the storage area – using a trolley with poorly maintained wheels may increase effort
- Unpacking boxes of stationery supplies – unpacking boxes from the floor may increase awkward postures
- Placing supplies on storage shelves – shelving heights that are too high or too low may increase awkward postures.

Looking at each of the steps identifies the different sources of risk, which are the things that should be changed to control the risks.

For some complex situations, expert or specialist advice may be useful when conducting a risk assessment. There are a range of risk assessment tools that may be used. Further information is in Appendix F.

Assessing similar tasks:

If a number of your workers carry out very similar hazardous manual tasks, you may assess these tasks together as a group instead of assessing each task individually. However, you should only do a group risk assessment if all the tasks are sufficiently similar and do not expose a worker to a different risk than if individual assessments were carried out.

3.3 WHAT ARE THE RISK FACTORS?

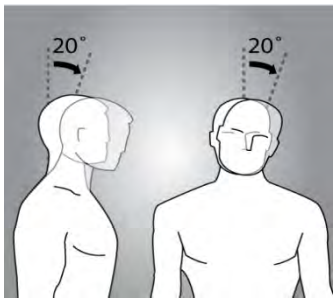
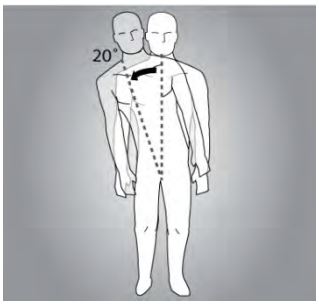
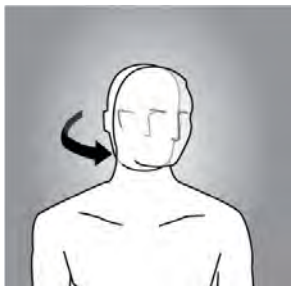
Working through the following questions will assist in determining which postures, movements and forces of the task pose a risk. The Risk Assessment Worksheet at Appendix D may be used to record the findings.

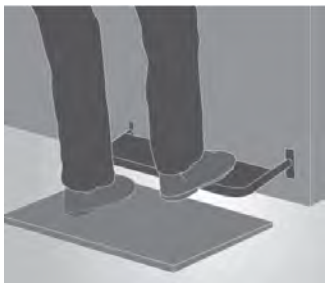
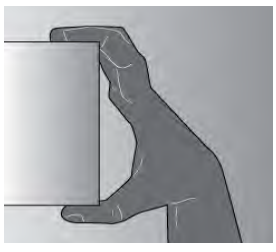
Question 1: Does the task involve any of the following:

- Repetitive movement?
- Sustained or awkward postures?
- Repetitive or sustained forces?

As a general guideline, ‘repetitive’ means that a movement or force is performed more than twice a minute and ‘sustained’ means a posture or force is held for more than 30 seconds at a time.

Examples of postures and movements that pose a risk if they are repetitive or sustained are:

<table>
<tr><td>Bending the back or head forwards or sideways more than 20 degrees</td><td>Figure 12
 
</td><td>Figure 13
 
</td></tr>
<tr><td>Bending the back or head backwards more than 5 degrees or looking up</td><td colspan="2">Figure 14
  </td></tr>
<tr><td>Twisting the back or neck more than 20 degrees</td><td>Figure 15
  </td><td>Figure 16
  </td></tr>
<tr><td>Working with one or both hands above shoulder height</td><td colspan="2">Figure 17
  </td></tr>
<tr><td>Reaching forward or sideways more than 30cm from the body</td><td>Figure 18</td><td>Figure 19</td></tr>
</table>

		
Reaching behind the body	**Figure 20** 	
Standing with most of the body's weight on one leg	**Figure 21** 	
Twisting, turning, grabbing, picking or wringing actions with the fingers, hands or arms that includes excessive bending of the wrist	**Figure 22** 	
Working with the fingers close together or wide apart	**Figure 23** 	
Squatting, kneeling, crawling, lying, semi-lying or jumping.	**Figure 24**	

	
Very fast movements, for example packing bottles from a fast moving process line.	**Figure 25** 

The risk increases as the degree of bending and twisting increases. The risk is greatest when the postures and movements are extreme, that is, toward the end of the movement range, and when they feel uncomfortable for the worker.

Question 2: Does the task involve long duration?

If you have assessed a task as involving postures, movements or forces that are also repetitive (more than two per minute) and/or sustained (held for more than 30 seconds), you should determine the duration of the task.

The duration of the task is how long the task is carried out over a whole shift or continually at any time during a shift. Tasks that continue over a long period or are repeated over the work day increase the risk of injury.

As a general guideline, long duration means the task is done for more than a total of 2 hours over a whole shift or continuously for more than 30 minutes at a time.

Keep in mind that workers may use the same parts of the body to repeat similar movements when carrying out various tasks that are similar in nature over time.

Question 3: Does the task involve high or sudden force?

High forces can cause MSDs even if they are not repetitive or sustained. This means that any task involving high force may be a risk, even if it is only done occasionally or for short periods. The longer and more often force is applied and the higher the force, the greater the risk.

The risk in tasks involving high force is related to:

- The intensity of the force needed - forceful muscular exertions place high stress on the muscles, tendons, joints, ligaments and vertebral discs.
- The speed involved - fast movements (particularly if repeated) can injure muscles, tendons and ligaments. The rapid or sudden speed changes caused by sudden or unexpected movements are high risk.
- Whether the force is jerky or sudden - forces suddenly applied or stopped can overload the muscles, tendons, joints, ligaments and vertebral discs. This can occur when throwing or catching loads, or when the load or item worked on

moves unexpectedly (for example, when pulling up a fence post that suddenly comes free, or assisting and holding a walking patient who suddenly falls).

- High and sudden forces are commonly associated with the handling of live persons or animals and loads that are unstable, unbalanced or difficult to hold.

Question 4: Does the task involve vibration?

Prolonged exposure to whole-body or hand-arm vibration increases the risk of MSDs and other health problems. The degree of risk increases as the duration of exposure increases and when the amplitude of vibration is high.

Some examples of sources of vibration are:

- Driving, particularly on rough roads.
- Frequent or prolonged use of hand powered tools.
- Use of machines or tools where the manufacturer's handbook warns of vibration.
- Workers being jolted or continuously shaken.
- Use of a vehicle or tool not suitable for the environment or task.

Question 5: Is there a risk?

The task involves a risk of MSD if you have answered 'yes' to either:

• **Question 1 and Question 2**	The task involves repetitive or sustained postures, movements or forces, *and* it involves long duration.
• **Question 3**	The task involves high force or sudden force.
• **Question 4**	The task involves vibration

A task may involve more than one risk factor. Where a number of risk factors are present and interact within a task, the risk of MSD increases significantly.

3.4 WHAT ARE THE SOURCES OF THE RISK?

When conducting the assessment, think about the sources of any risks that are present in the task. These will be the things that you may be able to change to eliminate or reduce the risk of MSD. For example, poor postures and movements may be due to the layout of the workplace, high forces may be due to the loads being handled, and the frequency and duration of the task may be due to the work organisation, limited staff numbers or increased work pace to meet tight deadlines.

The main sources of risk are:

- Work area design and layout.
- The nature, size, weight or number of things handled in performing the manual task.
- Systems of work.
- The environment in which the manual task is performed.

These sources of risk can also make the task more difficult to perform and therefore increase the risk of MSD.

For each risk factor, you should ask:

- Where in the task are they occurring

- Why each of these actions is occurring (source of the risk).

The answers to these questions will provide the information on how to fix the source of the risk and hence control the risk of MSD.

Consider the work area design and layout:

A work area includes work benches, conveyors, furniture and fittings and the equipment used by workers doing that job. The positioning and relationship of the different elements in a work area to each other and to the worker are important because of the effect on working postures.

A work area that is designed without consideration of the risks that arise from hazardous manual tasks may impose awkward postures on workers undertaking manual tasks, for example, bent and twisted positions with shoulders raised and the need to reach for items or carry loads over long distances.

Consider the nature, size, weight or number of persons, animals or things handled:

Loads:

Loads can be a source of risk due to the amount of muscular effort needed to handle them. The harder to grip and control a person, animal or thing, the greater the force required to handle them.

The risk can arise from:

- Size, shape and weight of load – loads that are large, bulky, or heavy and cannot be held close to the body or are asymmetric and put uneven forces on the spine.
- Loads that are difficult to grip through unsuitable handles, handholds or surface textures.
- Unstable or unwieldy loads can create sudden high muscle forces and result in overloading of muscles, tendons or discs.
- Handling people or animals – both the physical and behavioural nature of people or animals can be a source of risk, for example unpredictable movements requiring sudden forces to control.

Tools:

Tools that are unsuitable for the task can be a source of risk by increasing the force required, or by promoting sustained or awkward postures. Risks can arise from:

Weight – heavy hand tools, particularly if held for long periods of time, increase the force and effort required to perform a task, for example, a 3kg power drill used on an assembly line.

Balance – if the heaviest part of the tool is in front of the wrist, the force required to grip the tool and stop it tilting forward is increased.

Handle design – if the handle diameter is too large or too small, the grip span of the hand will create awkward postures and greater force will be required to control the tool. A handle that is too short or has prominent edges, can result in damaging compression of the palm.

Handle orientation – if the handle design does not place the wrist in a handshake position, the worker will need to use an awkward posture to operate the tool. Tools that cannot be adapted for use by both hands or are designed for right-handed use only can result in awkward postures and increased force.

Shock loading and impact – tools that deliver impacts such as hammers, hammer drills, and nail guns transmit impact forces to various ligaments and can require the use of a firmer grip to maintain control. They are a particular source of risk if used repetitively and for long periods.

Prolonged use – continued use of any hand tool (even tools that are well suited to the user and designed for the task) without adequate time to recover will increase risk of injury due to the sustained force to support it. In particular,

vibrating tools increase risk.

Maintenance – poorly maintained or irregular service of tools and equipment may increase the effort needed to use them. For example, an unsharpened knife will increase the force required to bone and slice meat.

Consider the systems of work:

Systems of work, or the way work is organised, can influence the physical and mental demands that a manual task places on a worker. The fatigue and strain (physical and mental) that may arise from the aspects of work (task demands, task control and resources and support provided) bring on physiological responses such as increased muscular tension and affect the function of muscles, nerves and blood vessels, increasing the risk of the worker developing an MSD.

The sources of risk include:

- Time constraints.
- Pace and flow of work across the working day or shift.
- Ability for workers to influence workload or work methods and changes in the workplace.
- The level of resources and guidance.
- Consultation processes.
- Work roles and performance requirements or processes for dealing with conflicts.
- Staffing levels, skill mix and shift arrangements.

Remember that workers will also have different physical and psychological characteristics and these individual factors may increase the risk, for example:

- **Skills and experience** – being inexperienced in a job may increase the risk
- **Physical characteristics** – an overload situation may result from a mismatch between the worker and the task
- **Unaccustomed work** – workers who are new, have transferred from another job or are returning from extended leave and whose muscles are not conditioned to the work.

Consider the workplace environment

The sources of risk in the work environment include:

- **Cold environments** - such as in cool rooms, freezers, cold stores or working outside in cold and/or wet weather can lower body and hand temperature and make handling and gripping objects more difficult. Increased grip force can also result from reduced sensitivity in cold hands or from wearing gloves. Cold can also significantly increase the risk of hand-arm vibration. Working in a cold environment requires thick or heavy protective clothing that restricts movement which can increase the risk of MSD. It can also cause overheating of the body as the clothing does not allow heat or sweat to dissipate and may decrease the blood flow to muscles, increasing fatigue.
- **High temperatures** - (including radiant heat), for example, in foundries, laundries, bakeries, kitchens, or working in hot weather can make handling and gripping objects more difficult. Workers may have difficulty grasping objects due to perspiration on the hands or there may be sudden or unexpected forces due to loads slipping.
- **Humid environments** - caused by processes such as steam cleaning, cooking or the weather can also increase the risk of developing MSD. Handling wet or damp objects may require increased force. Humidity may also increase discomfort and fatigue.
- **Wind** - may increase the force required to handle items and reduce control while handling large objects, especially those that are flexible and have a large surface area. When working in windy conditions and in low temperatures that are also windy, the resultant wind chill may lower the body temperature further.

- **Slippery and uneven floor surfaces** - may increase the exertion required to perform manual tasks due to difficulty maintaining stability. Unsuitable floor coverings (for example carpet) may increase friction when moving objects such as trolleys
- **Obstructions** – caused by poor housekeeping and cleaning can lead to awkward postures such as reaching or bending over obstacles
- **Lighting** - low or high levels of lighting, as well as glare and reflection, may lead to awkward or sustained postures to either improve vision or to avoid glare.

4. CONTROLLING THE RISKS:

Now you know **which** risk factors are present, **where** they are present and **why** they are present (sources of the risk), you are in a position to know ***what*** must be controlled and work out ***how*** to do it.

4.1 THE HIERARCHY OF CONTROL:

The ways of controlling the risk of MSDs are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk control. The WHS Regulations require duty holders to work through this hierarchy to choose the control that most effectively eliminates or minimises the risk in the circumstances. This may involve a single control measure or a combination of two or more different controls.

Eliminate the risk:

The most effective control measure involves eliminating the hazardous manual task and its associated risk. Eliminating hazards and risks is usually easier and cheaper to achieve in the planning or design stage of an item, process or place used for work.

Minimise the risk:

If it is not reasonably practicable to eliminate the risk, then you must minimise the risks so far as is reasonably practicable by:

- Substituting the hazard with something that gives rise to a lesser risk.
- Isolating the hazard from any person exposed to it.
- Implementing engineering controls.

If there is a remaining risk, it must be minimised so far as is reasonably practicable by implementing administrative controls, and if a risk still remains, then suitable personal protective equipment must be provided and used. These two types of control measures, when used on their own, tend to be least effective in minimising risks because they rely on human behaviour and supervision.

Control measures should be aimed at eliminating or minimising the frequency, magnitude and duration of movements, forces and postures by changing the source of risk: the work area, tool, load, environment, method of handling and/or the way work is organised.

Hierarchy of control		Examples of control measures
Level 1	Elimination	• Automate the manual task (such as using remote controls) • Deliver goods directly to the point of use to eliminate multiple handling
Level 2	Substitution	• Replace heavy items with those that are lighter, smaller and/or easier to handle

Hierarchy of control		Examples of control measures
		• Replace hand tools with power tools to reduce the level of force required to do the task
	Isolation	• Isolate vibrating machinery from the user, for example by providing fully independent seating on mobile plant
	Engineering	• Use mechanical lifting aids • Provide workstations that are height adjustable
Level 3	Administrative	• Rotate workers between different tasks • Train workers to use control measures implemented when carrying out manual tasks
	Personal protective equipment	• Heat resistant gloves for handling hot items • Shock absorbent shoes for work on hard concrete floors

4.2 PURCHASING TO ELIMINATE OR MINIMISE RISKS:

Before purchasing equipment, such as tools, containers, workstations, machinery and vehicles, you should always check whether the item has been designed so that it can be used safely and best matches the needs of your workers. Where possible, you should:

- Brief designers and engineers so that consideration can be given to the design implications on the manual tasks performed.
- Liaise with manufacturers and suppliers about handling, delivery and storage requirements.
- Purchase ergonomically designed tools and equipment that suit the work being carried out and the physical characteristics of the workers.
- Check any vibration specifications.

4.3 CHANGING THE DESIGN OR LAYOUT OF WORK AREAS:

A well-designed work area will assist in eliminating or reducing the risk factors associated with a hazardous manual task, such as the degree of reaching, twisting or bending.

Workstation design:

Workstations should be designed to allow workers to work in an upright position, shoulders in a natural position (not elevated) and upper arms close to the trunk most of the time without large reaches to perform the task. Work surfaces should be easily adjustable to suit a range of workers and the tasks they perform.

Where it is not possible to provide adjustable workstations consider altering the design so that:

- The workstation height suits the widest range of physical characteristics of workers.
- Reaching distances suit shorter workers.
- Knee and leg clearances suit larger workers.

Working heights:

Tasks with high visual demands should be performed above elbow height and work surfaces may need to be tilted, for

example, for tasks involving delicate or precise manipulation.

Tasks where the hands make a narrow range of movements and can rest on the work surface should be performed at, or just above, elbow height. A sloping surface may reduce the amount of neck flexion required to perform desk-based tasks, such as drafting.

Light manipulative tasks or tasks involving the use of a keyboard should be performed at just below elbow height.

Tasks incorporating a range of arm movements using the shoulder should be performed at between hip and shoulder height, for example taking items from a stack and placing them on a conveyor.

Tasks requiring considerable muscular effort or use of the body for leverage, for example, drilling at a workbench, should be performed at hip height and no higher.

Where possible, place items used in manual tasks so they are:

- In front of the worker.
- Between waist and shoulder height.
- Close to the midline of workers and orientated towards the worker.
- On the worker's preferred side.
- Positioned within comfortable reaching distance.
- Positioned to avoid double handling and to avoid moving loads manually over long distances.

Displays and controls should be positioned to encourage comfortable head and neck postures, comfortable hand and arm reach and efficient use. You should:

- Place frequently used displays and controls, including keyboards and other input devices, directly in front of the worker.
- Position controls at comfortable elbow height.
- Select electronic or foot controls rather than hand controls if high force is required.
- Place pedals so that workers can operate them from a comfortable seated position.

Working position:

Workers should not remain in a seated, standing or otherwise static posture for prolonged periods. Design the workstation to provide opportunities for workers performing seated or standing tasks to vary their postures and movements

For seated tasks, seating should have the following features:

- Adjustable seat height and angle.
- A contoured backrest with a lumbar curve except those where the backrest would interfere with the actions to be performed.
- A swivel action to prevent the worker from twisting to reach workstation components.
- Rounded seat edges.
- A five-point base with casters to allow movement on carpet, and gliders fitted to the base for low-resistance flooring, where access to work items located beyond normal reach is required.
- A footrest or foot ring fitted on drafting or higher chairs to support the feet.

A seated work position is best for:

- Work that requires fine manipulation, accurate control or placement of small objects.
- Close visual work that requires prolonged attention.
- Work that involves operating a foot pedal.

Workers carrying out standing tasks should be provided with:

- A chair, stool or support so that the worker can alternate between sitting and standing.
- A footrest (large enough for the whole foot) to allow the worker to stand with either foot raised.
- Where possible, suitable floor covering to cushion concrete and other hard floors.

A standing work position is best when:

- Large, heavy or bulky loads are handled.
- Forceful movements are required.
- Reaching is required.
- Movements away from the working position are frequent.
- There is no knee room.
- There is limited space.

Work space

Work areas should have enough space to accommodate the number of workers and other people involved in the task, any equipment that might be required and space to operate the equipment safely. For example, when observing workers of an aged care facility assisting an infirm person to bathe, the bathroom may need to accommodate two workers, the client and a mobile hoist with space to manoeuvre a person in the hoist over the toilet and bath or into a shower area.

4.4 CHANGING THE NATURE, SIZE, WEIGHT OR NUMBER OF ITEMS HANDLED:

Handling loads:

Examples of control measures that should be considered when handling loads include:

- Purchasing products in smaller loads for manual handling or larger loads to be shifted mechanically.
- Reducing the size or capacity of containers.
- Using handheld hooks or suction pads to move loads such as sheet materials.
- Using grip devices adapted to the particular object to be carried. (Figure 26).

Figure 26 Use handling grip devices adapted to the particular object to be carried

Tools and equipment

Hand tools should be designed to:

- Be held in a neutral wrist or handshake position (Figure 27).
- Allow the hand to retain a comfortable grip span.
- Be well-balanced (the heaviest part of the tool needs to be behind the wrist).
- Be suitable for use by either hand.
- Provide a good grip surface.
- Prevent a worker from adopting a pinch grip with high force or for prolonged periods.

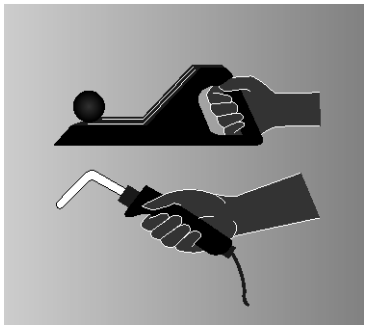
Minimise the level of muscular effort, particularly of the shoulder and wrist, needed to use hand tools by:

- Using power tools where possible.
- Suspending or supporting heavy tools where they are used repetitively and in the same place.
- Counterbalancing heavy tools that are used repetitively and need to be kept away from the body.
- Using trigger locks where the grip has to be sustained for more than 30 seconds.
- Holding the work piece in place with either jigs or fixtures selecting tools that produce the least amount of vibration.
- Reducing impact shocks.
- Limiting torque or 'kick back' reactions.

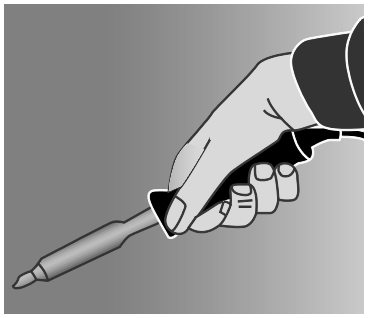
Maintenance:

Tools and equipment should be well maintained by carrying out regular inspections and servicing in accordance with the manufacturer's specifications.

Figure 27 Select tools that can be held with a neutral wrist or in a handshake position with the hand adopting a comfortable (not too open or too closed) grip. Orient jigs and fixtures holding the workpiece so that the wrist does not have to bend.



Excessive bending of the wrist is required to use this tool.



Modifying the tool eliminates the awkward wrist posture

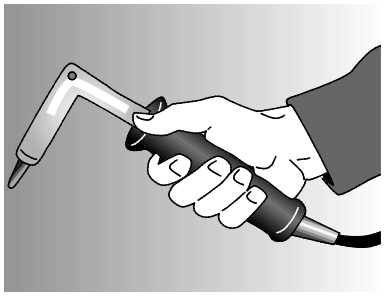
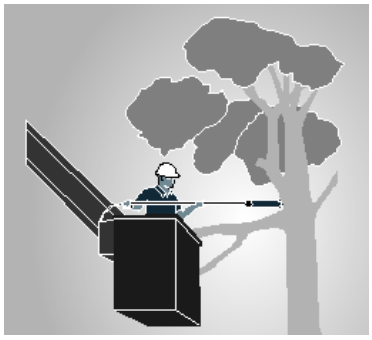


Figure 28 Select tools that are suited to the task, such as long handled saws when pruning trees.



The heaviest part of this brush cutter is located behind the wrists and the weight is supported by a harness.

An overhead suspension system reduces the forces required to use the iron.

4.5 USING MECHANICAL AIDS:

Mechanical equipment may eliminate or reduce the need for workers to lift, carry or support items, animals or people. A wide range of mechanical aids is available for various industries, for example: (Figure 29-31)

- Conveyors such as roller conveyors, elevating conveyors, belt conveyors, screw conveyors, chutes, monorails or trolley conveyors.
- Cranes such as overhead travelling cranes, gantry cranes or jib cranes, stacker cranes, industrial manipulators and articulating arms.
- Lifting hoists.
- Loading dock levelers.
- Turntables.
- Springs or gas struts, mechanical devices such as hand winches, hydraulic pumps, and battery powered motors
- Forklifts, platforms trucks, tractor-trailer trains, tugs and pallet trucks.
- Lift tables, mechanical and hand stackers, lift trolleys, two-wheel elevating hand trucks, and vacuum or magnet assisted lifters.
- Glass panel, duct and plaster lifters.

Figure 29 Example of lift table

Figure 30 Mechanical lifter hand to lift people

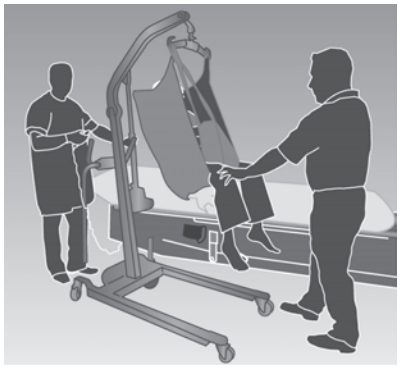
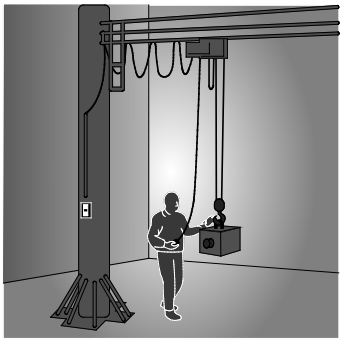
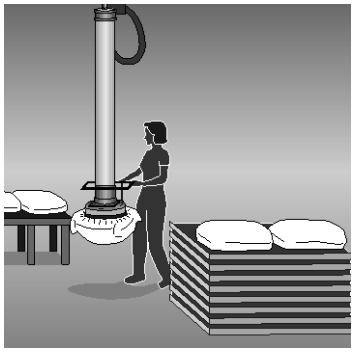


Figure 31 Using mechanical equipment, such as overhead cranes to lift and move very heavy objects eliminates the need to apply high force.



A vacuum operated lifting device can reduce the forces, awkward postures, and movements required to manually load products onto pallets.



A self-adjusting base in the laundry tubs reduces the need for bending, twisting and reaching during unloading

Mechanical aids should be:

- Designed to suit the load and the work being done.
- As light as their function will allow.
- Adjustable to accommodate a range of users.
- Easy to use.
- Suited to the environment in which the task is performed.
- Located close to the work area so they are readily available but do not cause an obstruction.
- Supported by a maintenance program to ensure they are safe and that the required effort to use them is kept at the lowest possible level
- Introduced with suitable instruction and training in their use.

When you introduce a mechanical aid into the workplace, you must provide adequate information, instruction, training and supervision to ensure that new arrangements do not introduce any additional risks to workers, for example, a forklift operated in the same workspace used by other workers.

Pushing and pulling loads:

Pushing loads is preferable to pulling because it involves less work by the muscles of the lower back, allows maximum use of body weight, less awkward postures and generally allows workers to adopt a forward facing posture, providing better vision in the direction of travel.

Reduce the effort required to start the load in motion by:

- Using motorised push/pull equipment such as tugs or electric pallet jacks.
- Using slide sheets to reduce friction when moving patients.
- Positioning trolleys with wheels in the direction of travel.
- Using large power muscles of the legs and whole body momentum to initiate the push or pull of a load.

Reduce the effort to keep the load moving by:

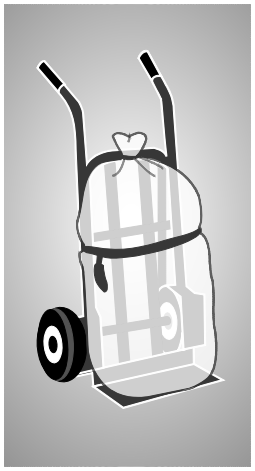
- Using motorised hand trucks and trolleys that are as lightly constructed as possible and have large wheels or castors that are sized correctly and roll freely.
- Using hand trucks or trolleys that have vertical handles, or handles at a height of approximately one metre.
- Ensuring that hand trucks and trolleys are well maintained.
- Treating surfaces to reduce resistance when sliding loads.
- For pushing, ensuring handles allow the hands to be positioned above waist height and with elbows bent close to the body.
- For pulling, ensuring handles allow the hands to be positioned below waist height allowing workers to adopt a standing position rather than being seated so the whole body can be used.

Reduce the effort needed to stop the load by:

- Indicating the place where loads need to be delivered.
- Planning the flow of work.
- Encouraging workers to slow down gradually.

- Fitting brakes and speed limiters so speed can be controlled, particularly if there is a need to stop quickly so as to avoid other traffic.

Figure 32 A trolley can eliminate many of the risks involved in manual handling, however, the load will still need to be maneuvered onto the trolley and through the workplace.



4.6 HANDLING PEOPLE AND ANIMALS:

Handling people

No worker should fully lift a person (other than a small infant) unaided, that is without assistance from, for example, mechanical aids, assistive devices or another worker. All people handling activities are a potential source of injury and the risks associated with this hazardous manual task must be eliminated or minimised so far as is reasonably practicable.

With people handling, the health and safety of the person being handled needs to be considered as well as the health and safety of the worker/s and others involved in the task. The physical condition of the person being handled as well as their non-physical characteristics, for example their ability to understand and communicate and their behaviour, will affect how the people handling activity is undertaken and the risks involved.

When people are being handled, the controls selected should take into account all of the sources of risks. Controls may include the following:

- A mobility risk assessment: maximise the person's ability to assist in the move through the use of appropriate advice, mechanical and/or assistive devices.
- Moving the person to a place that does not constrain the movement of the worker performing the task, for example, using a shower trolley to bathe a patient
- Where handling is required, assessing the needs of the task including the specific type of mechanical aids and personnel needed, and planning it in a manner that avoids the hazardous manual task
- Where the use of a hoist requires two or more people provide adequate supervision and resources to eliminate the risk of workers being under time pressure and attempting the task on their own
- Planning how to handle a person attached to medical or other equipment
- Ensuring the location and storage of mechanical aids and assistive devices allows easy access
- Providing training for the safe use of mechanical aids and assistive devices.

Handling animals:

Supporting or restraining animals should only be carried out by people with the necessary skills and experience. When animals are being handled consider the following:

- Using mechanical devices or other restraining aids for lifting, transporting or restraining animals
- Moving the animal to a place that constrains or minimises the movement of the animal before commencing the task
- Where handling is required, assessing the needs of the task including the specific type of mechanical aids and personnel, and planning it in a manner that avoids double-handling
- Where the use of a mechanical aid or assistive device requires two or more people, providing adequate resources so that workers under time pressure don't try to complete the task on their own.

4.7 CHANGING THE SYSTEM OF WORK:

Workload and pace of work:

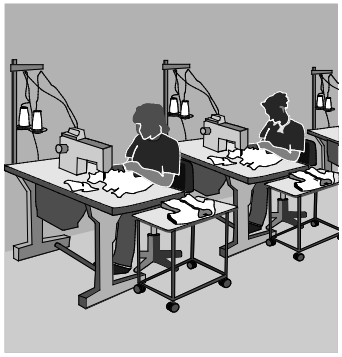
The workload and pace should accommodate the physical demands of the manual task. Where possible, work should be organised to minimise multiple handling and improve the flow of work by:

- Having raw materials delivered, located or transferred mechanically to the location or work area where they will be used. For example, building supplies can be delivered by truck or crane to the on-site location where they will be used or to the external lift, rather than being delivered to the front gate
- Delivering materials, tools and items on mobile systems, for example, on roller pallets
- Processing and packaging items in the same location or on the same workbench
- Locating storage areas close to distribution areas
- Changing the distribution of work across the work day or week to avoid high peak workloads
- Using systems that minimise the need for storage and additional handling
- Asking suppliers to deliver products, items or tools in a way that allows them to be used without the need for additional handling, for example, flat packs delivered on a vertical frame or table tops facing the right way up for use.

Workers should not have to work at a rate that is at the limit of their ability. When you establish a work rate, you should consult with the workers affected and their health and safety representatives. Set realistic work rates by:

- Allowing workers to control the pace for critical or physically demanding tasks
- Providing adjustability in the line speed, for example, reduce the speed when conditions are altered, such as when new products are introduced or poor quality materials are used
- Providing buffers to allow material to be taken off-line, for example, 'holding' bins or benches off the main processing conveyor.

Figure 33 The work rate for high volume production and processing should not extend workers to their physical limits.



Design tasks for the working population:

Task design should take account of the range of human dimensions and capabilities such as height, reach and weight. Adapt work systems to accommodate the health/fitness status of a worker. If this is not reasonably practicable, allocate the worker to other tasks. In designing work systems, considerations also include:

- The capacity of workers who have not reached physical maturity for physically demanding work.
- The possibility that older workers may have a decreased physical capacity for physically demanding or fast work.
- The need for gradual adjustment to physically demanding work activities during recovery from injury or illness.
- Pregnancy which affects the risk of back pain because of the changing shape of the body.

Provide transition arrangements for workers undertaking unaccustomed work by:

- Reducing the pace of work or workloads.
- Providing more frequent breaks.
- Job rotation.

Resources and support

When introducing risk control measures that involve plant, tools or equipment, ensure that:

- It is the right equipment for the task.
- There is sufficient, available equipment.
- Plant, tools and equipment are checked and maintained on a regular basis.

To allow for adequate recovery time and to reduce exposure to risks of MSD, arrange to have the right staffing levels, skill mix and shift arrangements considering:

- Shift lengths.
- The levels of overtime.
- Placement of rostered days off.
- The numbers of workers during peak periods.

Communicate and consult with workers about the way work is organised and allow workers to seek assistance from another person when necessary.

4.8 CHANGING THE WORK ENVIRONMENT:

Vibration

Whole-body vibration – the design of vibration damped equipment and engine mountings are the most effective methods of controlling vibration exposure. Other strategies to reduce exposure include:

- Improving vehicle suspension and installation of operator seats mounted on suspension systems which incorporate spring and damper elements
- Ensuring that equipment and control measures implemented to reduce vibration are well maintained
- Ensuring workers adjust their seats appropriately and equipment is operated within the speed suggested by the manufacturer or to a speed that reduces vibration levels
- Training workers about the risks associated with whole-body vibration, the controls that have been implemented and how they should be used.

Hand-arm vibration – substitute alternative manufacturing methods or processes to eliminate the need for vibrating equipment. Where this is not possible, the best strategy is to purchase tools and equipment that produce less vibration.

Cold conditions

To control exposure to cold conditions you should:

- Ensure your workers take regular rest breaks in a warm place
- Ensure your workers wear non-slip footwear and clothing that is fitted and not too bulky or restrictive
- Provide personal protective equipment suitable for the task (for example, gloves to provide protection from the cold and also allow a good grip of the objects being handled).

Heat and humidity

For workers in hot and humid conditions, reduce temperature and humidity during manual tasks where possible by:

- Relocating work away from sources of heat
- Providing fans or air-conditioning
- Using screens, awnings and clothing to shield workers from radiant heat sources such as ovens, furnaces and the sun
- Enclosing hot processes and increasing ventilation
- Altering work schedules so that work is done at cooler times
- Providing a cool, well-ventilated area where workers can take rest breaks
- Ensuring that workers work at a sensible pace
- Providing a supply of cool drinking water.

Windy conditions

Consider minimising the risk of exposure to windy conditions by:

- Planning the route of work through protected pathways
- Using vehicles to transport items in outdoor conditions
- Co-ordinating tasks during low wind conditions.

Floors and surfaces

Keeping work areas clean, tidy and free of clutter or obstacles prevents workers from adopting awkward postures and reduces the level of exertion that may be required to reach over or around obstacles. Clean, smooth and flat surfaces can also reduce forces required to push and pull objects and prevent slips, trips and falls.

Lighting

Select lighting to suit the task performed. To prevent awkward or sustained postures that may arise from low or excessive levels of lighting, glare or reflection:

- Provide additional lighting, such as a lamp on a movable arm, where required
- Improve the layout of existing lights by lowering or raising them or changing their position in the work area
- Increase or decrease the number of lights
- Change the diffusers or reflectors on existing lights
- Change the lights to improve light levels or improve colour perception

- Change the orientation or position of the item to avoid shadows, glare or reflections
- Clean lights and light fittings regularly
- Use screens, visors, shields, hoods, curtains, blinds or external louvers to reduce reflections, shadows and glare
- Control natural light sources (particularly bright sunshine) on work pieces, screens and work surfaces by orientation and placement at 90 degrees to the source and/or by providing screening and louvers.

4.9 USING ADMINISTRATIVE CONTROL MEASURES:

Administrative control measures do not address the risk factors or source of the risk – they only attempt to reduce risk by reducing *exposure* to those risk factors.

Job rotation

The risk of MSDs may be minimised by rotating staff between different tasks to increase task variety. Job rotation requires the tasks to be sufficiently different to ensure that different muscle groups are used in different ways so they have a chance to recover. To increase task variety, you should consider:

- Combining two or more tasks so both are done by one worker and alter the workstation and items used accordingly.
- Providing breaks doing another task when the job is monotonous.

Rest breaks

Regular rest breaks provide opportunities for workers to prevent the build-up of, or recover from the effects of, fatigue in muscle groups used during hazardous manual tasks that involve:

- Repetitive awkward postures or sustained postures.
- Application of high force.
- Vibration.
- Long duration.
- High levels of mental demand combined with hazardous manual tasks, for example inspection work.

The frequency and duration of rest breaks will be dependent on the nature of the task. Generally, the greater the force required, or the longer a posture is sustained, the greater the recovery time.

More frequent and shorter rest breaks are better for rest and recovery than fewer, longer breaks. Build short breaks into task rotation arrangements where work is of a similar nature, for example process production or hand tool use. Micro-pauses (very short intermittent breaks) in physical activity are also beneficial. Build these into the design of tasks and methods of work, for example:

- Workers put down hand tools or release them (suspension) between operations.
- Keyboard operators remove hands from keyboards during natural keying breaks.
- Stagger manual tasks over the full work shift.

Team handling:

Team handling is manual handling of a load by two or more workers. Team handling brings its own risks and requires coordination. It should only be used as an interim control measure. You should redesign manual tasks to allow the use of mechanical equipment, or eliminate the need to lift, if there is a regular need for team handling. Team lifting can increase the risk of MSD if:

- The load is not shared equally.
- Workers do not exert force simultaneously.

- Individual workers need to make foot or hand adjustments to accommodate other team members, reducing the force each can exert.
- Performed on steps or on a slope where most of the weight will be borne by handlers at the lower end.
- Individual workers unexpectedly lose their grip, increasing or changing the balance of the load on other team members.

Whenever team handling is used it is essential to match workers, co-ordinate and carefully plan the lift. You should ensure that:

- The number of workers in the team is in proportion to the weight of the load and the difficulty of the lift.
- One person is appointed to plan and take charge of the operation.
- Enough space is available for the handlers to manoeuvre as a group.
- Team members are of similar height and capability, where possible.
- Team members know their responsibilities during the lift.
- Training in team lifting has been provided and the lift rehearsed, including what to do in case of an emergency
- Aids to assist with handling (a stretcher, slings, straps, lifting bars, lifting tongs, trolleys, hoists) are used where possible and training is provided in their use.

Information, training and instruction:

If a risk of MSDs remains after implementing higher level control measures, then the risk must be minimised by providing information, training and instruction. Training in lifting techniques must not be used as the sole or primary means to control the risk of MSDs.

4.10 IMPLEMENTING CONTROL MEASURES:

Risk control may initially involve using short term, interim measures while a long term solution is developed. For example, temporarily raise the bench until it can be replaced or altered permanently, or rotate employees through a production line to reduce the time spent working at a low bench until it can be changed.

To implement the most effective risk controls, you should:

- Allow workers to trial solutions before decisions are made to make the solution permanent.
- Review controls after an initial testing period, as they may need modification.
- Develop work procedures to ensure that controls are understood and responsibilities are clear.
- Communicate the reasons for the change to workers and others.
- Provide training to ensure workers can implement the risk controls for the task competently.
- Ensure that any equipment used in the manual task is properly maintained.

You should not make final decisions on the effectiveness of the control measures that you have implemented until enough time has passed for your workers to adjust to the changes. Workers should be given a chance to practice using the new workstation, tool, mechanical device or new work method. Some modifications may require workers to use new muscle groups or different parts of the body and they may initially feel some discomfort. At this stage, you should frequently check with your workers how they feel the improvements are working.

Training:

Training in the type of control measures implemented should be provided during induction into a new job and as part of an on-going manual task risk control program. Training should be provided to:

- Workers required to carry out, supervise or manage hazardous manual tasks.
- In-house designers, engineers and officers responsible for the selection and maintenance of plant and/or the design and organisation of the job/task.
- Any health and safety representatives.

The training should include information on:

- Manual task risk management, including the characteristics of hazardous manual tasks.
- Specific manual task risks and the measures in place to control them.
- How to perform manual tasks safely, including the use of mechanical aids, tools, equipment and safe work procedures.
- How to report a problem or maintenance issues.

You should review your training program regularly and also when there is change to work processes, plant or equipment, implementation of new control measures, relevant legislation or other issues that may impact on the way the task is performed.

You should keep records of induction and training given to your workers. The records can include information such as the date of the session, the topics dealt with, and the name and signature of the trainer and each of the workers who attended the session.

5. REVIEWING CONTROL MEASURES:

Control measures that have been implemented must be reviewed and, if necessary, revised to make sure they work as planned and to maintain a work environment that is without risks to health and safety.

Regulation 38: A person conducting a business or undertaking must review and as necessary revise risk control measures:

- When the control measure does not minimise the risk so far as is reasonably practicable.
- Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
- If a new hazard or risk is identified.
- If the results of consultation indicate that a review is necessary.
- If a health and safety representative requests a review.

Control measures may be reviewed using the same methods as the initial hazard identification step. Consult your workers involved in the manual task and their health and safety representatives and consider the following:

- Are the control measures working effectively in both their design and operation, without creating new risks?
- Are workers actively involved in the risk management process? Are they openly raising health and safety concerns and reporting problems promptly?
- Have new work methods or new equipment reduced physical strain or difficulty?
- Has instruction and training on hazardous manual tasks and the implemented control measures been successful?
- Is the frequency and severity of MSDs reducing over time?
- Is an alteration planned to any structure, plant or process that is likely to result in a worker being exposed to a hazardous manual task?

- Has an incident occurred as a result of a worker being exposed to a hazardous manual task?
- If new information becomes available, does it indicate current controls may no longer be the most effective?

If problems are found, go back through the risk management steps, review your information and make further decisions about risk control.

6. ROLE OF DESIGNERS, MANUFACTURERS, IMPORTERS AND SUPPLIERS

The best time to eliminate or minimise the risk of MSDs is in the design and planning stage – when hazards and risks can be 'designed out' before they are introduced into a workplace.

Designers, manufacturers, importers and suppliers of plant and structures have duties under the WHS Act to ensure, so far as is reasonably practicable, that these products are without risks to health and safety when used for a purpose for which they were designed or manufactured.

6.1 DESIGNERS:

Regulation 61: Designers of plant or structures used for work must:

- Ensure the plant or structure is designed to eliminate the need to carry out a hazardous manual task in connection with the plant or structure.
- Ehere this is not reasonably practicable, minimise the need to carry out a hazardous manual task in connection with the plant or structure so far as is reasonably practicable.
- Give each person who is provided with the design for the purpose of giving effect to it adequate information about the features of the plant or structure that eliminate or minimise the need for any hazardous manual task to be carried out.

Ergonomic principles should be applied in the design stage. This means that a manual task should be designed to fit the people doing the task, not the reverse. Ergonomics involves consideration of the variability in human capability and an understanding of how people interact with the work environment, tools and equipment.

If you provide your design to another person (for example, a manufacturer) then you must provide certain information, including:

- The purpose for which the plant or structure was designed.
- How you have dealt with hazards that may impact on manual tasks in your design, and whether there are any residual risks.
- How to handle the product safely, including during its transportation, installation, operation, maintenance and disposal.

Quality assurance processes can be used to check that the product effectively minimises the risk of MSDs. When modifying a design, take into account feedback from purchasers and users of your product.

Design of workplaces:

Designers of buildings used as workplaces should consider the manual tasks that may be performed throughout the lifecycle of the building, from construction through to use, maintenance, refurbishment and potential demolition. For example, design:

- Building materials that are strong yet light-weight.
- Large structural components with suitable lifting points to enable lifting by crane.
- Spaces large enough to accommodate or incorporate mechanical devices.
- Minimal distances for pushing, pulling, lifting or carrying loads.

- Materials handling devices into the building, such as lifts and chutes.
- Floor surfaces to enable wheeled equipment to be pushed or pulled easily.

Some types of workplaces, such as hospitals, nursing homes, warehouses and distribution centres that carry out a high level of manual tasks will have particular design requirements to eliminate or minimise the risk of MSDs.

Design of plant:

The safe design of plant can play a critical role in reducing the risk of MSD for workers. When designing plant, consider all phases of its life, including manufacture, cleaning and servicing.

If practicable, trial a prototype in a range of operating conditions and think about how the plant will be used. Change any aspects of the design that increase the risk of injury, for example:

- Eliminate or reduce the number of repetitive actions, postures and movements required to operate the plant.
- Design handles on tools and controls to allow normal wrist postures.
- Reduce the forces required to operate the plant.
- Provide instructions, signs or symbols to help people use the plant properly.
- Take into account the range of physical characteristics of those who use the plant, such as size and strength.
- Ensure that the plant operates at a speed or rate that would suit most users.
- Ensure that regular maintenance points are easily accessible.

Appendix E lists some examples of design-related MSD risks for plant, and shows how to control the risks through safe design.

6.2 MANUFACTURERS, IMPORTERS AND SUPPLIERS:

Regulation 61: Manufacturers of plant or structures must:

- ensure the plant or structure is manufactured designed to eliminate the need to carry out a hazardous manual task in connection with the plant or structure
- where this is not reasonably practicable, minimise the need to carry out a hazardous manual task in connection with the plant or structure so far as is reasonably practicable
- give each person to whom the manufacturer provides the plant or structure adequate information about the features of the plant or structure that eliminate or minimise the need for any hazardous manual task to be carried out.

Importers and suppliers must take all reasonable steps to obtain that information the designer or manufacture is required to give and provide it to any person to whom the plant or structure is supplied.

Manufacturers, importers and suppliers should consider the way their products are packaged and delivered to workplaces to eliminate or minimise the risk of MSDs, for example:

- Provide lifting aids or lifting points so mechanical aids can be used.
- Provide two handles or handholds to prevent one-handed lifting, particularly where the load is heavy or needs to be moved frequently.
- Repackage the load into a different weight, size or shape:
    - large and bulky loads are difficult to handle, promote awkward postures, increased muscular exertion and are difficult to hold close to the body;
    - heavy loads generally require greater force to handle.; or
    - loads that are unwieldy, unstable or move unpredictably increase risk by creating sudden high forces.

- Label loads to indicate any MSD risks, and where appropriate, any necessary precautions when handling the load.
- Deliver goods in sturdy boxes or containers with handles or handholds. Handholds on cardboard boxes should be reinforced so that it does not rip when the box is picked up.

Packaged items should be arranged so the package is well balanced and the contents will not shift unexpectedly while being handled, for example:

- Use slings or other aids to maintain effective control when handling loads that lack rigidity.
- Fill containers holding liquids or free-moving powder so that there is only a small amount of free space at the top of individual containers.
- Use baffles, dividers or packing materials to keep the contents stable in partly-filled packages.
- Secure loads that may move during handling, for example animals in slings, fertiliser bags inside sturdy boxes
- Shrink wrapping loads on pallets.

Providing information:

Manufacturers, importers and suppliers must also give purchasers and users the information they need to use the product safely, including during its transportation, operation and maintenance. This information may be provided in user manuals, brochures or on the product itself (for example, labelling cartons). The information should be accurate, clear and easy to understand.

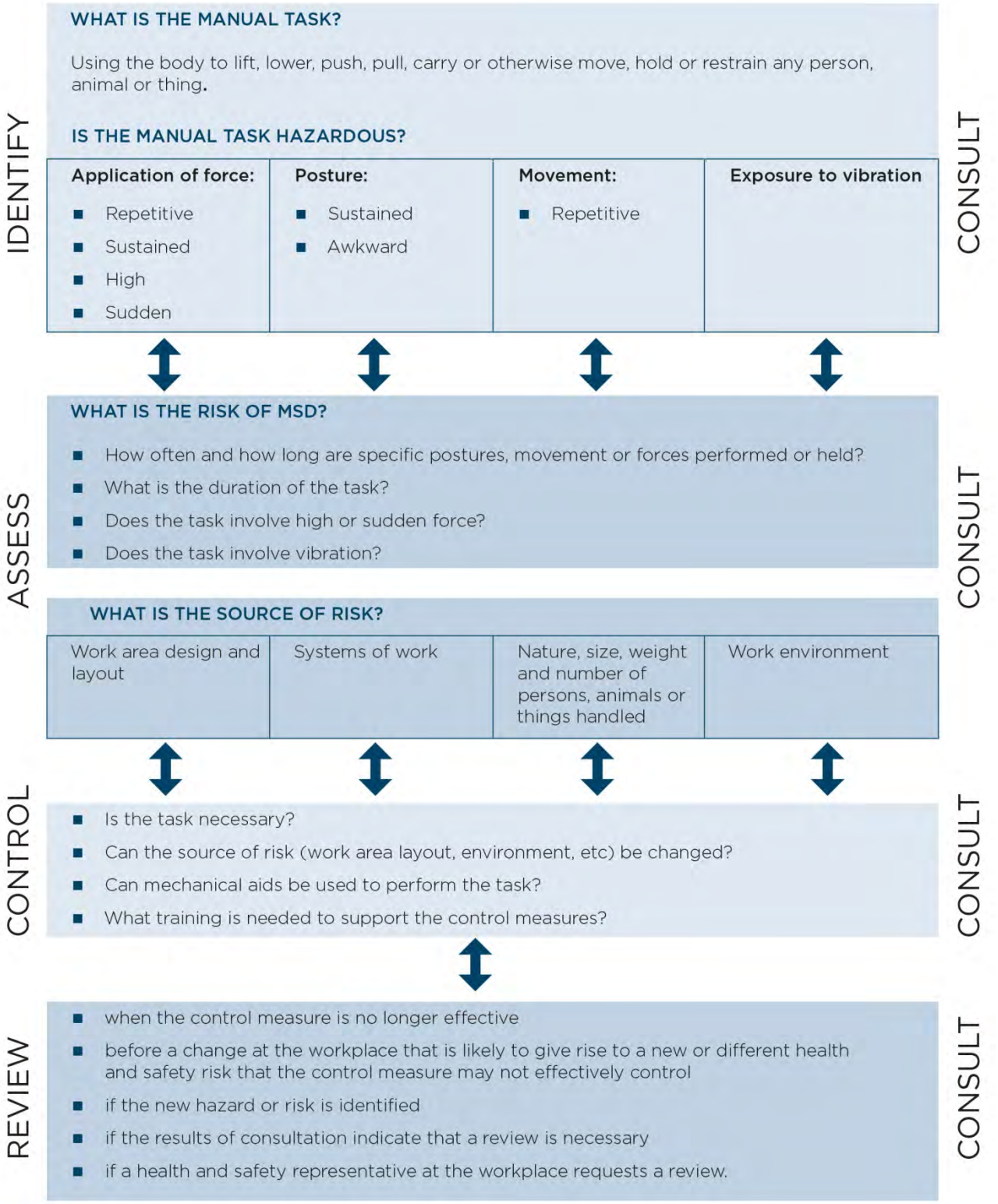
Loads should be labelled to indicate any MSD risks, and where appropriate, any necessary precautions when handling the load. This information should indicate:

- The heaviest side of an off-centred load, for example, with an arrow drawn on the packing carton.
- The weight of the load.
- Whether the load is fragile.
- The stability of the load, for example a label saying that the contents of a package may move while being transported or handled.
- Any specific handling or unpacking instructions.

Information provided by the designer to the manufacturer should be passed on to the supplier and then to the purchaser. Importers should obtain the information from their suppliers.

If you are an importer or a supplier and you cannot get this information from the designer or manufacturer, you should obtain information from other sources or develop it yourself.

APPENDIX A – THE RISK MANAGEMENT PROCESS FOR MANUAL TASKS



Work area:

Management representative:

Health and Safety representative and workers taking part:

Date:

Does the task have any of the characteristics of a hazardous manual task? (tick any of the following that apply)

Task	Repetitive or sustained force	High or sudden force	Sustained or awkward postures	Repetitive movement	Exposure to vibration
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

If you ticked any boxes for a particular task, you should do a risk assessment of that task.

APPENDIX C – DISCOMFORT SURVEY:

A discomfort survey can help identify hazardous manual tasks. Early reporting of symptoms can lead to risk controls being put in place before injury occurs.

The survey sheet below will help you identify and record instances where workers experience discomfort that:

- persists, or
- re-occurs the next day, or
- persists after rostered days off.

Encourage workers to report pain or discomfort at work or at any other time. Follow up the reasons for the problem. Even if only one worker reports problems, assess the presence of a risk factor.

Name (optional) _____

Date _____

Job work location _____

Tasks involved _____

Time on this job: Less than 3mths ☐ 3mths to 1 yr ☐ 1 to 5 yrs ☐

Supervisor _____

1.Do you suffer from swelling, numbness, tingling, 'pins and needles' stiffness, aches and pains in any part of the body? Indicate in the diagrams where the problem occurs.

2. Rate the level of discomfort/pain on a scale of 1 to 5

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

Just noticeable Moderate Unbearable

3. What do you think caused the problem?

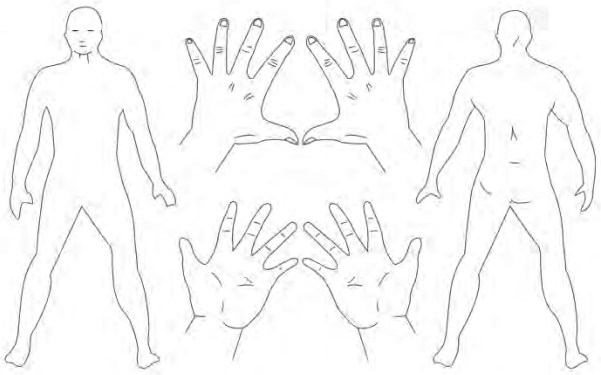
_____

_____

_____

_____

_____



APPENDIX D – RISK ASSESSMENT WORKSHEET:

Location of task:	**Management rep:**
Description of hazardous manual task:	**Health and Safety rep:**
Date of assessment:	**Others (workers, consultants):**

Reason for identification

☐ Existing task	☐ Change in task, object or tool	☐ Report of musculoskeletal disorder (MSD)
☐ New task	☐ New information	

Step 1 – Does the task involve repetitive or sustained movements, postures or forces?

As a guide;

- repetitive means the movement or force is performed more than twice a minute and
- sustained means the posture or force is held for more than 30 seconds at a time.

Postures and Movements (place a tick in the 'yes' column each time you observe repetitive movement or sustained posture)		Yes ✓	This action happens when...	because... (describe why) This is the source of the risk	If any boxes are ticked, what are possible controls to reduce the risk
BACK					
Bending or twisting e.g. more than 20 degrees	Forwards	☐			
	Sideways	☐			
	Twisting	☐			
Bending e.g. more than 5 degrees	Backwards	☐			

Postures and Movements (place a tick in the 'yes' column each time you observe repetitive movement or sustained posture)		Yes	This action happens when...	because... (describe why) This is the source of the risk	If any boxes are ticked, what are possible controls to reduce the risk
NECK OR HEAD					
Bending or twisting e.g. more than 20 degrees	Forwards	☐			
	Sideways	☐			
	Twisting	☐			
Bending e.g. more than 5 degrees	Backwards	☐			
ARMS/HANDS					
Working with one or both hands above shoulder height		☐			
Reaching forwards or sideways more than 30cm from the body		☐			
Reaching behind the body		☐			
Excessive bending of the wrist		☐			
Twisting, turning grabbing, picking or wringing actions with the fingers, hands or arms		☐			
LEGS					
Squatting, kneeling, crawling, lying, semi-lying or jumping,		☐			
Standing with most of the body's weight on one leg		☐			
VERY FAST MOVEMENTS		☐			

FORCES (Place a tick in the 'yes' column each time you observe repetitive or sustained forces)	Yes	This action happens when...	because... (describe why) This is the source of the risk	If any boxes are ticked, what are possible controls to reduce the risk
Lifting or lowering	☐			
Carrying with one hand or one side of the body	☐			
Exerting force with one hand or one side of the body	☐			
Pushing, pulling or dragging	☐			
Very fast actions	☐			
Working with the fingers close together or wide apart	☐			
Applying uneven, fast or jerky forces	☐			
Holding, supporting or restraining anything (including a person, animal or tool)	☐			

STEP 2 – DOES THE TASK IN STEP 1 INVOLVE LONG DURATION?

Tick yes if the task is done for:

DURATION	Yes	COMMENTS
More than 2 hours over a whole shift,	☐	
Continually for more than 30 minutes at a time	☐	
IF YOU TICKED YES THEN THE TASK IS A RISK AND MUST BE CONTROLLED		

STEP 3 – DOES THE TASK INVOLVE HIGH OR SUDDEN FORCE?

FORCES (Tick yes if the task involves any of the following high or sudden forces, even if the force is applied only once)	Yes	This action happens when...	because... (describe why) This is the source of the risk	If any boxes are ticked, what are possible controls to reduce the risk
Lifting, lowering or carrying heavy loads	☐			
Throwing or catching	☐			
Hitting or kicking or jumping	☐			
Applying a sudden or unexpected force including: ■ handling a live person or animal or ■ applying uneven, fast or jerky forces during lifting, carrying, pushing or pulling or ■ Pushing or pulling objects that are hard move or stop eg a trolley	☐			
Exerting force while in an bent, twisted or awkward posture including: ■ supporting items with hands are above shoulder height or ■ moving items when legs are in an awkward posture, working with fingers pinched together or held wide apart ■ Using a finger grip or pinch grip or an open handed grip	☐			
Exerting a force with the non-preferred hand	☐			
Needing to use two hands to operate a tool designed for one hand	☐			
The task can only be done for short periods of time	☐			
Two or more people need to be assigned to handle a heavy, awkward or bulky load	☐			
Workers report pain or significant discomfort during or after the task	☐			
Stronger workers assigned to do the task	☐			
Employees say the task is physically very strenuous or difficult to do	☐			
Workers think the task should be done by more than one person, or seek help to do the task as it requires high force	☐			

STEP 4 – IS THERE HAND, ARM OR WHOLE BODY VIBRATION?

Tick yes if any of the following environmental factors are present in the task.

	YES
Driving for long periods	☐
Driving on rough roads	☐
Frequent use of hand powered tools or use for long periods	☐
Using high grip forces or awkward postures when using power tools	☐
Use of machines or tools where the manufacturer's handbook warns of vibration	☐
Workers being jolted or continuously shaken	☐
Use of a vehicle or tool not suitable for the environment or task	☐

STEP 5 – IS THERE A RISK?

Did you answer yes in step 1 and step 2? **The task is a risk. Risk control is required.**

Did you answer yes in step 3? **The task is a risk. Risk control is required.**

Did you answer yes in step 4? **This task requires further investigation**

To aid prioritisation of timing and resourcing risk controls you may also need to consider:

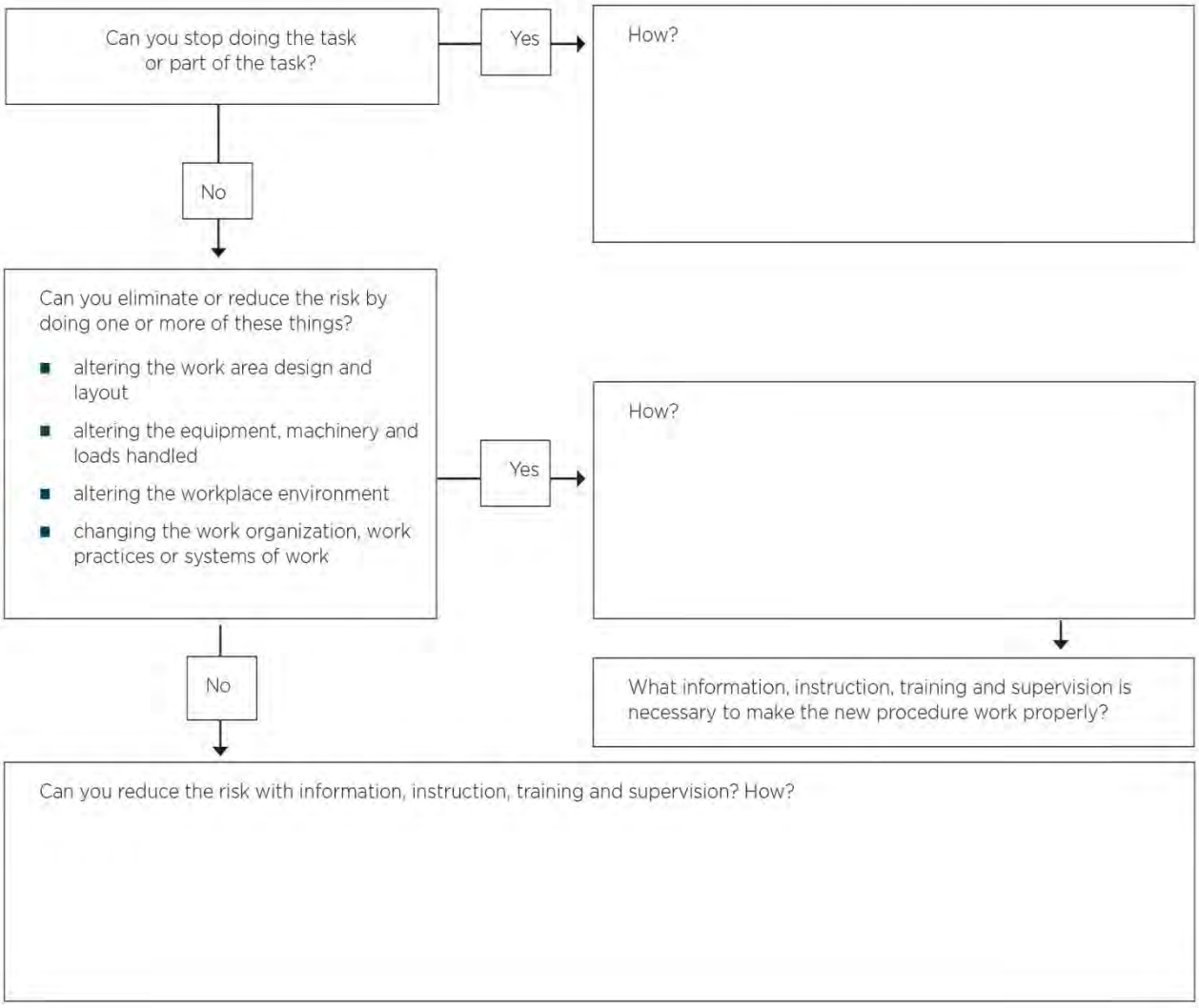
- Number of ticks or risk factors.
- Additional factors such as injuries associated with the task.

These items capture degree and likelihood of harm. You will also need to consider the availability and suitability of risk controls for the task.

RISK CONTROL

What needs to be fixed to control the risk? (Refer Section xx)

You may need to use a combination of risk controls to eliminate or minimise the risk as far as reasonably practicable.



APPENDIX E – CONTROLLING MSD RISKS THROUGH DESIGN:

Type of plant	MSD risk	Possible design solution
Road-making machinery	Repetitive or sustained twisting of the neck and body while reversing. This is caused by the seat being fixed in a forward-facing position.	Design a swivel seat-mount together with two sets of controls, or controls that move with seat rotation.
Forklifts	Sustained exposure to whole-body vibration transferred through the seat. Repetitive or sustained bending of the neck and back to see the work properly (for example, continually looking up to place loads on high shelves).	Install damping mechanisms in the seat, cabin and vehicle suspension. Install visual aids such as mirrors or a video camera and screen.
Wrapping machines on process lines	Strain on the lower back when handling heavy rolls of plastic wrapping in awkward and twisted postures, often above shoulder height. This is caused by inappropriate design and positioning of the roll spindle and by restricted access.	Design the spindle to be adjustable. This allows the rolls to be loaded at a suitable height and orientation, and eliminates the need to lift them. Design equipment to help worker load rolls. Locate the spindle in an accessible place on the plant. Provide information about how to install the plant in a way that allows adequate access.
Power drills	Prolonged use of the forearm muscles and wrist caused by a heavy or poorly balanced drill. Exposure to vibration or impact shock recoil from hammer drills. Excessive force needed to grip and control the tool to counter the effect of vibration and impact shocks.	Design drills to be as light as possible. Design drills with the handle under the drill's centre of gravity. Design plant to reduce shock and vibration. Provide a suitable way of holding the tool with both hands.
Pliers	Pressure to the palm of the hand caused by handles that are too short. Prolonged use of the forearm muscles and compression of the wrist caused by using pliers with straight handles.	Design pliers with handles that extend beyond the palm. Design pliers with bent handles so that the user can maintain a straight wrist.
Crimping, clamping and cutting tools	Excessive force with outstretched fingers required to grip handles that are too wide apart.	Design handles with a grip span of 10 cm or less.

Type of plant	MSD risk	Possible design solution
Chainsaws	Excessive vibration. High force required to handle the chainsaw.	Design to reduce vibration. Design the chainsaw to be as light as possible, and provide well-placed handles.
Chairs	Poorly designed chairs that cannot be adjusted provide little back support and cause workers to adopt poor postures and movements.	Follow existing design guidelines for chairs, and consider how the chair will be used in the workplace.
Work-benches, workstations and other work surfaces	Workstations that cannot be adjusted result in unnecessary reaching, bending and exertion of force.	Design workstations to be adjustable. Alternatively, dimensions should suit as many workers as possible.

APPENDIX F – REFERENCES FOR FURTHER RISK ASSESSMENT METHODS

Method	More information
University of Michigan 3 Dimensional Static Strength Prediction Program Computer Software OR University of Michigan 2 Dimensional Static Strength Prediction Computer Software	www.umich.edu
1991 NIOSH Lifting Equation (National Institute of Occupational Safety and Health – USA)	USA National Institute of Occupational Safety and Health http://www.cdc.gov/niosh/docs/94-110/pdfs/94-110.pdf
Snook and Ciriello's Tables of Maximum Acceptable Weights and Forces	Snook and Ciriello, "The design of manual handling tasks: revised tables of maximum acceptable weights and forces", in Ergonomics, 1991, vol. 34, no. 9, pp. 1197-1213.
Rapid Entire Body Assessment (REBA)	Hignett, S and McAtamney, L., Applied Ergonomics, 2000, vol. 31, pp. 201-205
Posture, Activity, Tools, Handling (PATH)	PATH : A work sampling-based approach to ergonomic job analysis for construction and other non-repetitive work. *Applied Ergonomics* 1996, vol. 27, no. 3, pp. 177-187
Manual Tasks Risk Assessment Tool (ManTRA) V2.0	Burgess-Limerick, L., Straker, L., Pollock, C., Egeskov, R. 2004. Manual Risk Assessment Tool (ManTRA) V2.0. School of Human Movement Studies, The University of Queensland, Australia. http://ergonomics.uq.edu.au/download/mantra2.pdf

PErforM	**Burgess-Limerick,** R. (2004): PErforM and ManTRA. *Ergonomics Australia*, 18(4), 10-13.
OCRA Index and Checklist	Colombini, D., Occhipinti, E., & Grieco, A. (2002). Risk assessment and management of repetitive movements and exertions of upper limbs : job analysis, OCRA risk indices, prevention strategies and design principles. Oxford: Elsevier.
The Work Organisation Assessment Questionnaire (WOAQ)	EEF (2004). Work Organisation Assessment Questionnaire: A tool for the risk management of stress. London: EEF.
MSD risk assessment questionnaire	Wendy Macdonald, Owen Evans and Ross Armstrong, 2007, Centre for Ergonomics & Human Factors, Faculty of Health Sciences, La Trobe University. Research on the Prevention of Work-Related Musculoskeletal Disorders – Stage 2 A study of a small sample of workplaces in high risk industries. Department of Employment and Workplace Relations. OHS EXPERT RESEARCH PANEL. Project No. CIR 1001439-07

LIST OF AMENDMENTS

Date	Page Number	Amendments
3 February 2016	Front Cover	Republication date of February 2016 added to the front cover.
3 February 2016	23	Section 4.1, Hierarchy of control table, Level 3, Administrative row, 2nd dot point – Text amended from 'normal' to 'manual'.

#Mental Health

WORK-RELATED PSYCHOLOGICAL HEALTH AND SAFETY

A systematic approach to meeting your duties

National guidance material:

TABLE OF CONTENTS

1. INTRODUCTION:

This Guide describes a systematic practical approach to managing work-related psychological health and safety. Most elements of this systematic approach are required under work health and safety (WHS) or workers' compensation laws in all Australian jurisdictions.

This Guide recognises poor psychological work health and safety can lead to both psychological and physical injuries.

1.1 SCOPE AND APPLICATION:

This Guide is intended to provide greater clarity about what a person conducting a business or undertaking (PCBU) Information Link under WHS laws, or an employer under workers' compensation laws must or should do in relation to psychological health and safety.

This Guide does not cover non-work-related psychological injuries. It also does not cover programs to support non-work related general and mental health delivered in worksites which are not required under WHS or workers' compensation laws. Information on these topics can be found in Where to go for help.

The information in this guide is based on the model WHS laws. These laws have not been implemented in all jurisdictions, although other Australian WHS laws have similar duties. For information on the laws in your jurisdiction see Safe Work Australia's website Link to Worksafe Website

1.2 HOW TO USE THIS GUIDE:

This Guide includes references to the legal requirements under the model WHS Act and WHS Regulations. These are included for convenience only and should not be relied on in place of the full text of the WHS Act or WHS Regulations. The words 'must', 'requires' or 'mandatory' indicate a legal requirement.

The word 'should' is used in this Guide to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

In this Guide wherever the word 'you' is used, this means the PCBU for the purposes of WHS or the employer under workers' compensations laws.

Where the elements of the systematic approach are not legal requirements, but are considered best practice, this is noted. Terms used in this Guide are those most commonly used in WHS and workers' compensation. Terms and their definitions are included in the glossary in Appendix 2.

NOTE: Where appropriate links are provided to relevant sections of these model WHS laws, requirements under workers' compensation laws vary and readers should check for specific requirements which apply in their jurisdiction.

2. THE SYSTEMATIC APPROACH TO PREVENTING HARM AND SUPPORTING RECOVERY:

The systematic approach is illustrated in Figure 1. This means using the elements discussed in the 'Preventing harm', 'Intervening early', and 'Supporting recovery' phases to methodically and comprehensively ensure your workers' psychological health and safety. By using this approach it can help you meet your legal duties to implement controls that eliminate or minimise the risk of psychological injuries being caused by work but also over time improve your organisation's approach to preventing psychological injury and supporting recovery.

Using a thorough and systematic approach can have significant business benefits including:

- Decreasing business disruption and costs from work-related psychological injury.
- Improving worker motivation, engagement and job satisfaction so increasing productivity, reducing absenteeism and turnover, and ultimately helping your organisation achieve its business goals.
- Enhancing your reputation as an employer of choice.

Figure 1. Systematic approach to psychological health and safety:

Prevent harm – This element focuses on your duties under WHS laws. To do this you must systematically and comprehensively:

- Identify work-related hazards and risks.
- Assess risks (where the degree of risk and suitable controls are not already known).
- Implement effective control measures to eliminate hazards or minimise risks. The main focus on the good design and effective management of work, creating safe systems of work and ensuring appropriate communication and behaviour.
- Consult effectively with your workers, their representatives and others where required.

Intervene early – This element includes some aspects required under both WHS and workers' compensation laws and some which are considered best practice. Early identification and management of any risks can help minimise the potential severity of injuries and time lost from work. These aspects will be discussed later in this Guide but include that you:

- Must review control measures and, where they are not effective, take action. The review might be prompted by routine monitoring or by your workers raising concerns about their psychological health and safety.
- Should:
    - Support workers showing early signs of work-related stress and modify their work duties to suit their circumstances, and
    - Provide early assistance for individuals who have an increased risk of injury. This could include facilitating access to appropriate mental health services.

Support recovery – This element relates to your duties under workers' compensation laws. Legislative requirements vary across Australia but there are common elements in each jurisdiction including that you:

- Should provide early assistance and support to access treatment and rehabilitation services, generally from the time a claim is lodged.
- Must support timely and sustainable recovery at work (RAW) or return to work (RTW) through effective consultation, addressing any remaining work-related psychosocial hazards and risks that may exacerbate the existing work-related psychological injury or cause a new injury.
- Must review the effectiveness of the control measures to ensure further harm or new injury does not occur.

Inner circle – includes important actions that should be occurring throughout the three stages and on an ongoing basis:

- Ensuring there is good work design and safe systems of work.
- Ensuring you are effectively controlling hazards and risks and monitoring and reviewing controls.
- Ensuring your workers have the training, information and supervision to do their job safely and well.
- Consulting with your workers and their health and safety representatives and consulting, co-operating and co-ordinating on any health and safety risks with all relevant people.
- Ensuring you, your leaders and management commit to WHS, including things required under WHS law and demonstrating due diligence.

These actions will assist you ensure psychological health and safety risks and RTW in your organisation is being adequately managed.

These can be supported by optional activities to promote good general physical and mental health. You are not required to implement workplace health promotion and wellness programs under either WHS or workers' compensation laws. However, implementing appropriate well run programs is considered best practice.

Fostering a people-oriented organisational culture through supportive management can aid in the prevention, early identification and management of mental health conditions in the workplace

3. PREVENTING HARM:

3.1 WHAT WORK HEALTH AND SAFETY LAWS APPLY?

The purpose of the WHS laws is to eliminate or minimise risks to the health and safety of workers. 'Health' is defined as meaning psychological as well as physical health. The WHS laws set out specific duties to manage risks to psychological health and safety which are noted below. It is important to remember a person may have more than one duty and more than one person can have the same duty.

A **PCBU** has the primary duty to ensure, so far as is reasonably practicable, workers and other people are not exposed to psychological health and safety risks arising from the business or undertaking.

This duty requires you to 'manage' risks to psychological health and safety arising from the business or undertaking by eliminating exposure to psychosocial hazards so far as is reasonably practicable. If it is not reasonably practicable to eliminate them, you must then minimise those risks so far as is reasonably practicable.

An **officer of a PCBU**, has a duty to exercise due diligence to ensure the PCBU complies with their duties under the WHS laws. This includes taking reasonable steps to gain an understanding of the psychosocial hazards and risks associated with the operations of the business or undertaking, and to ensure the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks to psychological health. An officer is essentially a person involved in making decisions that affect the whole or a substantial part of the organisation.

Workers have a duty to take reasonable care for their own health and safety and to not adversely affect the health and safety of other persons. Workers must comply with reasonable instructions, as far as they are reasonably able, and co-operate with reasonable health and safety policies or procedures that have been notified to workers.

Other persons at the workplace, like visitors, must take reasonable care for their own health and safety and must take reasonable care not to adversely affect other people's health and safety. They must comply, so far as they are reasonably able, with reasonable instructions given by the PCBU to allow them to comply with WHS laws.

Other legislative frameworks:

WHS and workers' compensation laws do not operate in isolation and other laws may also be relevant.

Criminal laws - where incidents of bullying involve an assault or other criminal behaviour, the criminal laws will apply.

Anti-Discrimination laws - each Australian jurisdiction regulates against the discrimination of certain groups including sex discrimination. Under anti-discrimination laws, organisations are also required to make reasonable adjustments by making changes to allow workers with mental disorders to perform the inherent requirements of their job.

Fair Work Act 2009 and some jurisdictional industrial laws contain measures to address bullying at work. A worker who is subject to bullying at work can apply to the Fair Work Commission for an order to prevent the worker from being bullied at work by an individual or group of individuals. Under the Fair Work Act 2009 an employer must not take any adverse action against an employee or prospective employee because of their disability (such as for accessing sick leave). State and territory industrial laws have similar protections against discrimination in employment.

Privacy laws – There are a number of Australian laws regulating handling and disclosure of personal information and health care records, including the Privacy Act 1998 (Cth). Responsibilities for handling personal information

could also arise under state and territory laws, particularly in relation to state or territory government agencies. Personal information includes information or opinion about an identifiable individual.

Disclosure by an employee during employment – Workers are not required to disclose information about a mental health condition to their manager or supervisor if the mental health condition does not affect how they do their job. However, organisational systems should be in place to ensure workers understand the importance of getting medical advice when their disability or long term health condition may affect their ability to carry out the inherent or essential requirements of the job, including working safely. Workers should be encouraged to consult their treating medical practitioner if they believe the job requirements may exacerbate their condition and then discuss this medical advice with their manager.

Disclosure during recruitment processes – Having a mental health condition does not often significantly affect a person's ability to perform the inherent requirements of a job. However, during the recruitment process you may ask an applicant to disclose a known disability or illness, including a mental health condition that might reasonably be expected to impact on the applicant's ability to perform inherent requirements of the job and to identify if any reasonable adjustments may be needed.

Under the Fair Work Act 2009, the prohibition on adverse action by a prospective employer against a prospective employee on the basis of physical or mental disability does not apply to action taken because of the inherent requirements of a particular position. If a prospective employee does not disclose a known pre-existing condition when requested, it may affect their access to workers' compensation if the condition worsens or recurs in that employment.

Given the sensitivities around requesting applicants to disclose their health conditions (and the risk you may be in breach of other laws if you seek this information without considering its relevance to the role and circumstances). You should get advice from a workplace relations expert before automatically including this in your recruitment processes.

3.2 CAUSES OF PSYCHOLOGICAL INJURY – PSYCHOSOCIAL HAZARDS:

Psychosocial hazards or factors are anything in the design or management of work that increases the risk of work-related stress. A stress response is the physical, mental and emotional reactions that occur when a worker perceives the demands of their work exceed their ability or resources to cope. Work-related stress if prolonged and/or severe can cause both psychological and physical injury.

Stress itself does not constitute a physical or psychological injury.

Workers are likely to be exposed to a combination of psychosocial hazards; some may always be present, while others only occasionally. Common psychosocial hazards and factors are listed below.

High job demands:

Sustained high physical, mental and or emotional effort is required to do the job. Some examples are tasks or jobs that require:

- Long work-hours.
- High workloads - too much to do, fast work pace or significant time pressure.
- Long periods of vigilance looking for infrequent events (like air traffic controllers, during long distance driving, security monitoring).
- Emotional effort in responding to distressing situations or distressed or aggressive clients (like paramedics dealing with difficult patients).
- Exposure to traumatic events or work-related violence (like emergency workers).
- Shift work leading to higher risk of fatigue.

- Frequently working in unpleasant or hazardous conditions (like extreme temperatures or noise, around hazardous chemicals or dangerous equipment, or having to perform demanding work while wearing uncomfortable protective clothing or equipment).

Low job demands:

Sustained low levels of physical, mental or emotional effort required to do the job. Tasks or jobs that where there is:

- Too little to do.
- Highly repetitive or monotonous tasks (like picking and packing products, monitoring production lines).

Low job control:

Where workers have little control over aspects of the work including how or when a job is done. Tasks or jobs where:

- Work is machine or computer paced.
- Work is tightly managed (like scripted call centres).
- Workers have little say in the way they do their work, when they can take breaks or change tasks.
- Workers not involved in decisions that affects them or their clients.
- Workers are unable to refuse dealing with aggressive clients (like police services).

Poor support:

Tasks or jobs were workers have inadequate:

- Emotional support from supervisors and co-workers.
- Information or training to support their work performance.
- Tools, equipment and resources to do the job.

Poor workplace relationships:

Jobs where there is:

- Workplace bullying, aggression, harassment including sexual harassment, discrimination, or other unreasonable behaviour by co-workers, supervisors or clients.
- Poor relationships between workers and their managers, supervisors, co-workers and clients or others the worker is required to interact with.
- Conflict between workers and their managers, supervisors or co-workers - this is made worse if managers are reluctant to deal with inappropriate behaviours.
- Lack of fairness and equity in dealing with organisational issues or where performance issues are poorly managed.

Low role clarity:

Jobs where there is:

- Uncertainty about or frequent changes to tasks and work standards.
- Important task information which is not available to the worker.
- Conflicting job roles, responsibilities or expectations (such as a worker is told one job is a priority but another manager disagrees).

Poor organisational change management:

Workplaces where there is:

- Insufficient consideration of the potential WHS and performance impacts during downsizing or relocations or associated with the introduction of new technology and production processes.
- Inadequate consultation and communication with key stakeholders and workers about major changes.
- Not enough practical support for workers during transitions times.

Low recognition and reward:

Jobs where:

- There is a lack of positive feedback.
- There is an imbalance between workers' efforts and formal and informal recognition and rewards.
- There is lack of opportunity for skills development.
- Skills and experience are underused.

Poor organisational justice:

Workplaces where there is:

- Inconsistent application of policies and procedures.
- Unfairness or bias in decisions about allocation of resources and work.
- Poor management of underperformance.

Poor environmental conditions:

Exposure to poor quality or hazardous working environments. Examples include:

- Hazardous manual tasks.
- Poor air quality.
- High noise levels.
- Extreme temperatures.
- Working near unsafe machinery.

Remote work:

Work at locations where access to resources and communications is difficult and travel times may be lengthy. Examples include:

- Farmers
- Real estate agents
- A community nurse conducting visits at night
- Night shift operators in petrol stations or convenience stores
- Off shore mining, and
- Fly-in, fly-out (FIFO) workers.

Isolated work:

Work where there are no or few other people around where access to help from others especially in an emergency may be difficult.

Violent or traumatic events:

A workplace incident involving exposure to abuse, the threat of, or actual harm that causes fear and distress and can lead to stress and/or a physical injury. This is common amongst groups such as first responders, disaster and emergency services and defence personnel. Examples include:

- Robbery.
- Assault.
- Being bitten, spat at, scratched or kicked.
- Being threatened with a weapon.

Secondary or vicarious trauma: There are also risks associated with witnessing a fatality, or investigating a serious injury or fatality. Some workers such as child protection workers, lawyers, police officers, forensic scientists, journalists and custom officers may as part of their work need to repeatedly listen to detailed descriptions of very painful and traumatic events experienced by others.

3.3. MANAGING RISKS TO PSYCHOLOGICAL HEALTH AND SAFETY

WHS laws require you to manage risks from hazards, including work-related psychosocial hazards, so far as is reasonably practicable.

A psychologically healthy and safe workplace does not happen by chance or guesswork. You have to think about what could go wrong at your workplace and what the consequences could be. Then you must do whatever you can (in other words, whatever is 'reasonably practicable') to control - eliminate or minimise - psychological health and safety risks arising from your business or undertaking.

The risk management process can be used, this involves the four steps set out below and shown in Figure 2:

Step 1 Identify psychosocial hazards – find out what could cause harm, considering the psychosocial hazards described above.

Step 2 Assess risks if necessary – understand the nature of the harm that could be caused by the psychosocial hazards, how serious the harm could be and the likelihood of it happening. This step may not be necessary if you are dealing with known risks to psychological health and safety that have known control measures. Examples of control measures are described in the How to control risks section.

Step 3 Control risks – implement the most effective control measures that are reasonably practicable in the circumstances and ensure they remain effective over time.

Step 4 – Review hazards and control measures to ensure they are working as planned.

Figure 2. The risk management process:

This process will be implemented in different ways depending on the size and nature of your organisation. Larger businesses or those where workers are exposed to more, or more serious psychological health and safety risks may need more complex and sophisticated risk management processes.

Leadership and management commitment:

Effective management of psychological health and safety risks starts with a commitment from you and others who operate and manage your business or undertaking. A clear, well communicated organisational workplace mental health policy is essential to support RTW and stay at work for those experiencing work related mental health conditions.

PCBUs and officers of a PCBU have a duty to exercise due diligence to ensure they meet their WHS obligations. Due diligence includes taking reasonable steps to:

- Acquire and update knowledge of work-related psychological health and safety matters.
- Understand the organisation's operations including any risks to work-related psychological health and safety.
- Ensure there are appropriate resources and processes to eliminate or manage risks, and these are used to effectively manage risks to psychological health.
- Ensure there are appropriate processes for receiving, monitoring and reviewing information on incidents, hazards and risks, and they are responded to in a timely way.
- Ensure the PCBU has processes for complying with any duties or obligations under WHS laws.
- Verify resources and processes are provided and used to manage risk.

When a WHS inspector is considering whether you are meeting your WHS duties, they will look for evidence that you are proactively managing WHS risks, for example, by taking similar steps to those required for officers to meet the due diligence requirements noted above.

Consulting workers:

Consultation is a key element of providing a psychologically healthy and safe work environment. You have a duty to consult with affected workers; if they have a health and safety representatives (HSR) the HSR must be included

in the consultation. This duty is described in more detail in the Code of Practice: Work health and safety consultation, co-operation and co-ordination. It recognises workers' input and participation can improve decision-making about psychological health and safety.

Consultation on psychological health and safety matters involves sharing information on hazards and risks, giving workers a reasonable opportunity to express their views, raise issues, contribute to the decision-making process, and taking those views into account. It is important that you respect their privacy and keep information confidential where this is necessary. Consultation also requires advising workers of the outcomes. Consultation with workers and their HSRs is legally required, so far as reasonably practicable, at each step of the risk management process. If workers are represented by unions, you may wish to seek their input during the consultation process.

Methods for consulting workers can vary according to the size of the workplace and the distribution of workers across sites and shifts. Examples include pre job start or toolbox discussions, focus groups, worker surveys, WHS committee meetings, team meetings and individual discussions.

By drawing on workers' experience, knowledge and ideas, it is more likely the main work-related psychological health and safety risks will be identified and effective control measures selected. Workers should be encouraged to talk about their experience, knowledge and ideas, either to their supervisor or another appropriate person (such as an HSR) so the risks can be managed before an incident occurs. Effective consultation with your workers can also help raise awareness of psychological health and safety.

Collecting workers' views can be done using focus groups or small groups (6–10 people) from across a business or organisation. They can help identify common psychological health and safety risks.

Worker surveys, for example People at Work, are another effective tool for consulting workers. When conducting a worker survey consider the size of the group and organisation, how representative the sample will be, and whether individuals can be identified. Information should always be reported at group level to ensure individuals are not identifiable.

Consulting, co-operating and co-ordinating activities with other duty holders:

WHS laws require that you do all that is reasonably practicable to consult, co-operate and co-ordinate activities with all other persons who have a WHS duty in relation to the same matter. For example, more than one business or undertaking may be involved in the same activity or share the same workplace and so may contribute to any psychological health and safety risks. Consulting, co-operating and coordinating allows you to work effectively together so risks are eliminated or minimised so far as is reasonably practicable. Further guidance is in the Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination.

Information, training, instruction and supervision:

You must ensure, so far as reasonably practicable, workers are provided with information, training, instruction and supervision to protect them from risks to their psychological health and safety while at work.

3.4 HOW TO IDENTIFY PSYCHOSOCIAL HAZARDS:

The first step in the risk management process is to identify all work-related psychosocial hazards. This involves finding things and situations that could potentially harm people. Psychosocial hazards can arise from organisational factors (work organisation, job design and poor workplace culture), environmental factors and individual factors. Common work-related psychosocial hazards are listed on page 9.

There may be other hazards unique to your organisation which should be considered. It is helpful to talk to your industry association, unions and WHS regulator to find out about hazards and solutions that may be common in your industry.

Psychosocial hazards may be identified by:

- Having conversations with workers, supervisors and health and safety specialists.
- Inspecting the workplace to see how work is carried out, noting any rushing, delays or work backlogs.
- Noticing how people interact with each other during work activities.
- Reviewing relevant information and records such as reporting systems including incident reports, workers' compensation claims, staff surveys, absenteeism and staff turnover data.
- Using surveys to gather information from workers, supervisors and managers.

In complex situations you may want to seek advice on specific risk identification and assessment techniques and the help of specialists.

Individual factors:

People respond to hazards in different ways. Individual differences that may make some workers more susceptible to harm from exposure to the same hazard include:

- Being a new or young worker.
- Having an existing disability, injury or illness.
- Having previously been exposed to a traumatic event.
- Workers who are currently experiencing difficult personal circumstances.

By talking to your workers, including these groups, and asking how they are coping you can decide if they may need some additional support so they can do their work safely and well.

You should do all that is 'reasonably practicable' to identify and control psychological health and safety risks including for at risk workers and to make adjustments to accommodate their needs at work. Your regulator will take into account a number of factors including your business size and nature when deciding what was reasonably practicable for you to do.

More information about what you can do if one of your workers is reporting feeling stressed or they think they have a work-related psychological injury is dealt with in the Intervening early and Supporting recovery Chapters.

Guidance on bullying and fatigue:

Specific advice on how to manage risks from bullying and fatigue may be found in the:

- Guide to Preventing and Responding to Workplace Bullying.
- Dealing with Workplace Bullying – a Workers' Guide.
- Guide for Managing the Risks of Fatigue.
- Fatigue Management – A Guide for workers.

3.5 HOW TO ASSESS RISKS:

Assessing risks involves considering what could happen if someone is exposed to a psychosocial hazard, the degree of harm that may result, and the likelihood of that outcome. The complexity of a risk assessment will depend on the types of hazards present, how workers are exposed, and the information and resources available.

Exposure to the hazard:

The frequency and intensity of exposure to each psychosocial hazard should be considered during the risk assessment. For example, infrequent exposure to low levels of workplace conflict may be unpleasant without causing a risk to psychological health and safety, while frequent exposure to high levels of conflict can increase the likelihood of both physical and psychological injury.

A risk assessment can help you determine:

- How severe a risk is - the frequency and duration of exposure to a psychosocial hazard and possible consequences of continued exposure and whether existing control measures are effective
- How urgently you need to take action.
- Options for eliminating hazards or minimising the risk- including their effectiveness and availability.

Many hazards and their associated risks are well recognised and have well-known and accepted control measures. In these situations it may not be necessary to formally assess the risk if there are well-known and effective controls measures suitable to your circumstances.

If, after identifying a hazard, you already know the risk and how to control it effectively, you can implement the controls without undertaking a risk assessment. You can simply then check to confirm these have been effective.

A more thorough risk assessment should be done if exposure to psychosocial hazards could result in a psychological injury and there is uncertainty about the:

- Potential severity of consequences.
- Ways hazards may interact to produce new or greater risks.
- Effectiveness of control measures.

The level of risk can be assessed by weighing up the presence of the psychosocial hazards listed on page 9 and considering the potential of the hazard to lead to harm.

Workers and others may be exposed to more than one type of psychosocial hazard at any one time. Psychosocial hazards interact with each other so you should not consider these separately. For example, the combination of high job demands, low control, and low support increases the likelihood and severity of physical or psychological harm.

How to assess risk from exposure to psychosocial hazards:

First identify who should participate in the risk assessment. For example your risk assessment might first focus on those parts of the organisation where psychosocial hazards have already been identified.

The most common methods used to assess risks are consulting with workers and their HSRs, using information from focus groups, interviews, and de-identified surveys and reviewing your organisation's records.

Important considerations when assessing the risk are:

- Workers' views of the work-related psychosocial hazards and factors. An assessment based on observation or other data alone is unlikely to provide accurate results, sometimes it will be helpful to ask work groups or team about the most important issues.
- The assessment should focus on known psychosocial hazards such as those listed and those specific to your workplace.
- Using the most suitable risk assessment method. This will vary depending on the nature of the work, your organisation and workforce.

For some situations, advice from experienced WHS professionals may be useful to help do the risk assessment and communicate results to your workers and HSRs or unions.

Australian and international WHS authorities have developed a range of free reliable and valid risk assessment tools and resources. See for example the People at Work tool kit, Link to Tool Kit the Copenhagen Psychosocial Questionnaire or the United Kingdom Health and Safety Executive Management Standards Indicator Tool.

3.6 HOW TO CONTROL RISKS:

The hierarchy of controls:

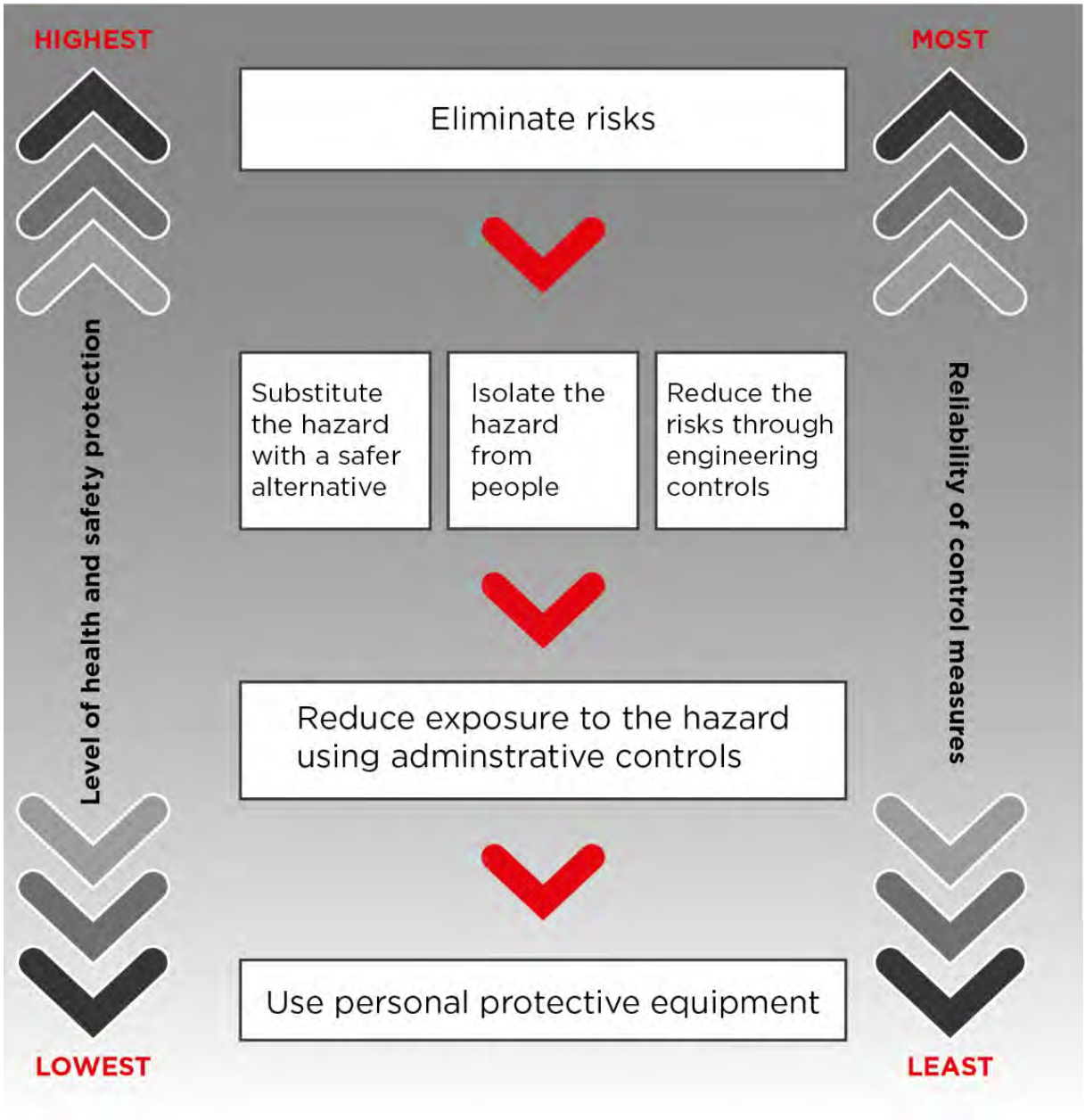
Under WHS laws, work-related hazards that present a risk to psychological health and safety must be eliminated so far as is reasonably practicable, or if that is not reasonably practicable, the risks must be minimised so far as is reasonably practicable.

Some control measures are more effective than others. Controls can be ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of control.

If your assessment has identified actual or potential harm from exposure to psychosocial hazards you can follow the hierarchy of controls to help you eliminate or minimise risks. You should match your risk control measures to the psychosocial hazards in the specific parts of your organisation you identified or assessed in steps 1 and 2 of the risk management process.

The Code of Practice: How to Manage Work Health and Safety Risks refers to the management of both physical and psychosocial hazards. The Code groups the hierarchy of controls into different types that can be applied when eliminating or minimising WHS risks. Other ways of considering a hierarchy of effective controls are discussed in the psychology, health promotion and public health literature on your jurisdiction's website or heads-up.

Figure 3. The hierarchy of risk control



WHS laws require you to eliminate risks so far as is reasonably practicable, and if it is not reasonably practicable to do so, to minimise those risks so far as is reasonably practicable. Further information is available in the Guide: How to determine what is reasonably practicable to meet a health and safety duty. Link to Guide

Eliminating risks (highest level of protection and reliability)

Eliminating the risk means completely removing the psychosocial hazard and associated risks. This is the most effective control measure and you should always consider it before anything else.

Examples include:

- Removing the risk of assault during a robbery by exclusively using remote payment methods
- Eliminating excessive work demands by:
    - Setting achievable workloads and performance targets with your current staff numbers and skills

mix.

- Designing jobs to eliminate activities better undertaken by outsourced companies with well-developed processes for example delivery of products to customers.

It may not be reasonably practicable to eliminate the risk, for example if doing so means you cannot make your product or deliver your service. Where a risk cannot be eliminated you must minimise it so far as is reasonably practicable.

You may find it useful to consider the information in the Principles of Good Work Design: A Work Health and Safety Handbook. Good work design considers the work tasks, work systems, the physical working environment, and the workers and others in the workplace. Good work or job design may involve eliminating hazardous tasks or minimising their risks by substituting them with less hazardous tasks, using isolation or engineering controls.
Link to Principals

Minimising risks

The hierarchy of control model was developed to address physical hazards. However it can be applied to psychosocial hazards.

Work design is used to minimise the risks by substituting the hazard, isolating the hazard from the person or putting in place engineering controls. This must be done so far as is reasonably practicable.

For psychological health and safety, substitution means substituting the hazardous ways of working with less hazardous alternatives, this is done by changing the design of the work or the system of work. Isolation and engineering controls may also be used to control physical and psychological risks.

Examples include designing work and work systems:

- Allowing longer for difficult tasks to be completed safely, especially by inexperienced staff.
- Matching work allocation with appropriate staff for example ensuring sexual assault caseload allocations consider the case type, complexity, numbers of available staff and their skills and experience.
- Redesigning work systems to minimise confusion by clearly defining your workers' roles, reporting structures, tasks and performance standards.
- Providing workers with control over their work pace to allow them to take breaks to manage their fatigue instead of using machine pacing or automated work allocation.
- Increasing the level of practical support during peak workloads.
- Consulting your workers about how major organisational changes may affect them and listening to their views.
- Improving the work environment by.
- Reducing the physical demands of the job by supplying appropriate manual handling equipment.
- Installing sound dampening technology or enclosing machinery to isolate the worker from unpleasant or hazardous noise.
- Increasing the lighting in darker areas or placing barriers between workers and customers to minimise the risk of assault, violence and other crime.

While you should use work design to minimise the risks so as far as reasonably practicable, where this is difficult

to adequately do you should carefully consider ways you can provide more emotional and practical support or increase the level of job control the worker has over their tasks. By increasing support and or job control you can minimise the impact of other psychosocial hazards and bolster people's capacity to cope, they may then experience less stress.

Administrative risk controls:

Only after applying substitution, isolation and engineering control measures to minimise risks so far as is reasonably practicable should you use administrative controls. They should always be used in conjunction with higher order controls.

They commonly include your organisation's policies and standard operating procedures. These outline for example your expected workplace behaviours and how you will manage unreasonable behaviour including by your supervisors, workers, clients or customers.

They may also include specific instructions on how to manage foreseeable serious risks and how to respond if an incident occurs, including providing assistance to your workers. This is very important where there is a higher likelihood of exposure to psychosocial hazards, for example emergency responders.

Administrative controls include:

- Using job rotation for repetitive or highly demanding tasks, to reduce exposure time such as rotating workers who need to deal with aggressive clients.
- Having clear expectations about psychological health and safety in your organisation including on bullying and sexual harassment and that you check these are put into practice.
- Ensuring your workers have the right tools, information, training and supervision to do their job safely and well you have a workplace values and rewards system that supports collaboration and teamwork in your organisation.
- You consult and train your workers to prepare for the introduction of new equipment, software or production techniques.
- Providing your supervisors with appropriate training in people and work management, and on the job support.
- You train your workers and supervisors to recognise early warning signs of psychological injury.

Your expectations about workplace behaviours can be outlined in policies and procedures of your value statements.

Personal protective equipment:

Protecting the worker through personal protective equipment (PPE) is a last resort and must be used where there are physical risks likely to cause a stress response that cannot be reasonably minimised using higher order controls. Examples include providing:

- Personal distress alarms.
- Outdoor workers with eye and face protection from the sun and glare.
- Police with body armour and face protection.
- Gloves, gowns, and face shields to protect child care workers, emergency workers, nurses and personal care workers from contact with body fluids.
- High quality hearing protection or headphones to reduce stress reported from excessive or annoying

background noise.

Combining risk controls:

Workers may be exposed to multiple psychosocial hazards. Some of these may always be present while others only occasionally. You should also always consider how hazards interact.

In most cases, a combination of control measures will most effectively minimise the risk. For example, in customer service there may be work pressure, aggressive customers and supervisors who are not readily available to provide support. In this circumstance a combination of control measures could include:

- Automating the service.
- Redesigning the work environment to introduce barriers between workers and clients.
- Job rotation to reduce exposure to distressed customers.
- Administrative procedures to prioritise customers showing signs of aggression.
- Training supervisor and workers to improve team communication.
- Providing training in de-escalation for aggressive customers.
- Reviewing difficult incidents to identify improvements to existing controls.

When implementing controls, you should always check you have not inadvertently introduced new hazards. Further guidance on controls specific to each of the psychosocial hazards can be found in Where to go for help. For more information to help you decide what you should consider when deciding what control measures are reasonably practicable see the Interpretive Guideline: The Meaning of 'Reasonably Practicable and example Appendix 3 - Scenarios.

3.7. HOW TO REVIEW YOUR CONTROL MEASURES:

You must maintain, monitor and review and then if necessary revise control measures for risks to psychological health and safety to make sure they remain effective. Reviews must occur:

- Where a new hazard or risk is identified.
- If a control measure is not adequately minimising the risk.
- Before a significant workplace change occurs for example a change to the work environment or systems of work
- Where consultation indicates a review is necessary.
- If a HSR requests a review.

Consultation with your workers and their representatives is required throughout the risk management cycle. This includes when you are reviewing control measures.

You can use the same method you used during the initial hazard identification and risk assessment process. Further guidance is in the Code of Practice: How to Manage Work Health and Safety Risks.

3.8. WHAT IS THE ROLE OF HEALTH PROMOTION?

General and mental health promotion is the process of enabling people to increase control over and improve their physical and mental health. Health promotion in the workplace refers to the combined efforts of employers, workers and society to improve the health and wellbeing of people and can include focusing on healthy lifestyles, personal development and learning, and non-work-related factors in the general environment.

A best practice approach to developing and sustaining a psychologically healthy and safe workplace should focus on mental illness prevention and mental health promotion.

You are not required under WHS laws to provide health promotion initiatives. However, well run initiatives can have positive effects on general and mental health. These initiatives can help managers and workers better understand physical and mental health, and build a supportive workplace culture. When these types of strategies are combined they can lead to better worker wellbeing and can mean workers feel more comfortable reporting work-related psychosocial hazards and accessing professional counselling services if issues do arise.

Senior management commitment and input from workers is required to ensure strategies are appropriate and meet specific needs. More information on integrated approaches to mental health which include the incorporation of health promotion see the resources on WHS authorities' websites.

It is important you do not adopt a health promotion strategy as an alternative to managing the psychological hazards and risk associated with the work undertaken in your organisation. However health promotion can work in conjunction with the systematic approach. For information on best practice integrated approaches and health promotion see your WHS authority's website or contact the organisations listed in Where to go for help.

4. INTERVENING EARLY:

Intervening early can be divided into three sub phases, the first two overlap with the 'prevent' phase and the last with the 'recover' phase.

- The first is to identify and respond to any signs the psychosocial hazards and risks in your workplace are not being well managed and the controls are not effective. This is part of the 'prevent phase' where you must monitor and review the main psychological health and safety risks and controls and where required make improvements. This is a legal requirement.
- The second is quickly intervening whenever you become aware a worker is becoming stressed and getting them the help they need. Having a workplace culture and procedures that support your workers disclosing if they are feeling 'overwhelmed' will provide valuable opportunities for early intervention. This may also include giving them access to counselling and extra workplace support. This may prevent them going on to develop a psychological injury requiring long-term personal leave or support through the workers' compensation scheme. In this second step you must investigate the psychological health and safety risks which have affected that worker but which might also be affecting others. This is an opportunity for you to identify and then better control risks that might injure others or harm your business.
- The third step is if the worker's symptoms persist and they are likely to be work-related, to provide them with help and support while a claim is being lodged and determined. It is best practice to continue to support the worker during this process. Examples are provided in this guide.

You can intervene early regardless of whether you think a workers' compensation claim will be made. While this it is not a legal requirement it will help support the worker's recovery and is considered best practice.

How to support early intervention:

The earlier you identify a worker is experiencing work-related stress the sooner steps can be taken to prevent a psychological injury.

Where you have identified a worker may be at risk because of a non-work related mental condition you have a duty to ensure, so far as reasonably practicable, the health and safety of your workers whilst at work. Your risk management process should include identifying any additional controls which may be required for workers with existing injuries or illnesses.

For information on reasonably practicable steps please see the Guide: How to determine what is reasonably practicable to meet a health and safety duty or seek information from your WHS regulator.

For information on how to implement best practice approaches to support workers with non- work related mental conditions please see resources on the heads-up website.

Similar to applying first aid for physical injuries, an early and supportive response to any of your workers who are telling you they are experiencing difficulty can help. You may like to provide workers with access to confidential debriefing or counselling services, including peer support programs.

Many people can contribute to effective early intervention. You and your managers and supervisors have a particularly important role. They are likely to be aware of workers who may be feeling stressed and are best placed to implement more effective control measures before risks result in a psychological injury.

Opportunities for early intervention include when:

- You receive reports of a work-related psychosocial hazard, this is a sign immediate action is needed.
- You receive reports of low morale, disengagement, unexplained sickness absences and reduced work productivity.
- Workers or teams show signs of work-related stress.
- A workers' compensation claim has been made but liability has not been determined.

Early reporting by your workers if they are finding it difficult to cope is important and you should encourage this by demonstrating your commitment to:

- Maintaining confidentiality.
- Supportive respectful and family friendly workplace.
- A disability-friendly workplace.

Factors that can discourage workers from disclosing they are feeling stressed includes:

- Concern about job security or of limited opportunities for promotion.
- Concern their supervisor might not be supportive.
- The risk of being treated differently by their supervisor or co-workers.

Examples of early interventions you may implement to improve RTW outcomes include:

- Promptly investigating complaints including reviewing and revising risk controls.
- Training your managers, supervisors and workers so they better understand psychological health and safety risks, how these can be managed, and to recognise early warning signs.
- Establishing clear policies on workplace behaviour and effective procedures for managing complaints, which are understood by all your workers.
- Having and communicating an early intervention policy outlining your expectations of your managers, supervisors and workers.
- Providing information for your workers on how to report psychological health and safety concerns (such as reporting bullying, harassment or work-related violence).

To be supportive you may want to offer flexible or varied working arrangements to one of your workers who appear stressed but where a workers' compensation claim has not yet been made or accepted. If so, you will need to discuss this with your worker to see if you can reach agreement with them. Discussion should include whether the new arrangement is permanent, temporary or subject to review and any conditions associated with the new arrangements. You must also check that any flexible or varied arrangements, including conditions for ending them, meet the terms of any contract, agreement or award that applies to your worker.

RTW outcomes will be improved by:

- Providing your worker with early access to counselling, conflict mediation services and professional mental health services.
- Talking with your worker to understand what reasonable adjustments could be made while the claims process is underway.
- Providing your worker with assistance to help them understand the workers' compensation system and how to lodge a claim.
- Encouraging them to lodge their claim early.

A key step widely recognised to improve RTW outcomes is for an appropriate manager or supervisor to contact the worker before they go off work and frequently through their recovery process to ask them how they are going, indicate your interest in their welfare and see what help they might need.

Even when a workers' compensation claim is not accepted or is disputed, it is best practice for you do what you can to try to support your worker and to recover from a psychological injury.

5. SUPPORTING RECOVERY:

5.1 HOW TO SUPPORT RECOVERY AND RTW:

In previous chapters the term PCBU was used, and is used here where the duties relate to WHS obligations. The term 'employer' is used where referring to workers' compensation laws and obligations. The term 'employer' is used in workers' compensation laws and carries a narrower meaning than PCBU.

This chapter provides guidance for you on legal requirements and how to support a worker's RAW or RTW following a work-related psychological injury. Many of the principles and practices are similar to those required for supporting recovery from physical injury.

This chapter also discusses some best practice strategies that go beyond those required by workers' compensation laws. Further information can be found on your WHS regulator and workers' compensation authority websites. See their contact details Where to go for help.

5.2 COMPENSABLE PSYCHOLOGICAL INJURY:

Psychological injuries arising out of or in the course of employment are generally covered under workers' compensation laws in each jurisdiction; these are known as compensable injuries. Most workers' compensation laws do not cover claims for psychological injury if they are related to reasonable administrative, management or employer action taken in a reasonable manner.

5.3 WHAT ARE THE WORKERS' COMPENSATION LAWS?

All Australian jurisdictions have workers' compensation laws which establish a no-fault scheme for the compensation and management of work-related injuries and illnesses, including psychological injury. These laws aim to support workers in the event of a work-related injury or illness including a psychological injury.

These laws, although similar in all jurisdictions, may have some variations so it is important to refer to your jurisdiction and ensure you are compliant with relevant laws. For more information on the specific arrangements in each jurisdiction, see the Comparison of Workers' Compensation Arrangements in Australia and New Zealand or your workers' compensation authority's website. Link to website

Workers' compensation is typically limited to workers who have entered into or who work under an employment contract. You have legal obligations to a worker with a work-related injury, including providing suitable duties.

Workers' compensation laws require employers to take out insurance to fund potential liability for workers injured at work.

The types of compensation and entitlements that can be claimed under most workers' compensation laws include:

- Medical expenses - doctors, psychiatrists, psychologists or counsellors.
- Income replacement payments to injured workers.
- Costs associated with rehabilitation and related programs including where required exercise routines.
- Costs associated with retraining for other employment or duties.
- Lump sum payment for any permanent injury or disability.
- Death benefits to a dependent of a deceased worker in the event of a work-related death (entitlements vary across jurisdictions).

Some jurisdictions offer provisional liability allowing the payment of benefits and medical expenses before a decision is made on the claim. This can ensure the injured worker has timely access to the appropriate medical attention prior to the determination of liability.

Regardless of whether or not you are in a jurisdiction that offers provisional liability, it is good practice to provide access to early interventions including medical treatment. Access to early medical treatment and a faster claims process has been shown to improve RTW outcomes for injured workers and for the organisation.

A long period away from work can undermine working relationships and has been shown to lead to poorer RTW outcomes for injured workers. Feeling isolated from people at work and having unresolved workplace conflict negatively affects the injured worker's capacity to return to normal functioning, including productive work.

5.4 WHO IS ELIGIBLE FOR WORKERS' COMPENSATION FOR A PSYCHOLOGICAL INJURY?

Eligibility for workers' compensation and entitlements for psychological injury are influenced by the laws in each jurisdiction regarding:

- The definition of an eligible worker.
- The definition of work-related psychological injury.
- Connection to employment.

A worker is generally eligible for workers' compensation if their employment is recognised as casual, part-time

or full-time under an employment contract. Entitlements for self-employed and contract workers vary.

There must be a relationship between the injury and employment before the worker can claim workers' compensation. In most jurisdictions, there are additional requirements with respect to the relationship between the psychological injury and the employment.

5.5 PROVISIONAL LIABILITY:

All jurisdictions have exclusion to entitlements if the injury arises from reasonable management action taken in a reasonable way. There are differences in the degree to which each jurisdiction requires a connection with employment. For example, in some jurisdictions employment must have been a significant contributing factor whereas in others it must have been the major significant contributing factor to the psychological injury. More information about these matters can be found in Where to go for help and the Comparison of Workers' Compensation Arrangements in Australia and New Zealand.

Similar to applying first aid for physical injuries, an early and supportive response to any of your workers who are telling you they are experiencing difficulty can help. You may like to provide workers with access to confidential debriefing or counselling services, including peer support programs.

Many people can contribute to effective early intervention. You and your managers and supervisors have a particularly important role. They are likely to be aware of workers who may be feeling stressed and are best placed to implement more effective control measures before risks result in a psychological injury.

Opportunities for early intervention include when:

- You receive reports of a work-related psychosocial hazard, this is a sign immediate action is needed.
- You receive reports of low morale, disengagement, unexplained sickness absences and reduced work productivity.
- Workers or teams show signs of work-related stress.
- A workers' compensation claim has been made but liability has not been determined.

Early disclosure by your workers is important and you should encourage this by demonstrating your commitment to:

- Maintaining confidentiality.
- Supportive respectful and family friendly workplace.
- A disability-friendly workplace.

Factors that can discourage workers from disclosing they are feeling stressed includes:

- Concern about job security or of limited opportunities for promotion.
- Concern their supervisor might not be supportive.
- The risk of being treated differently by their supervisor or co-workers.

Examples of early interventions you may implement to improve RTW outcomes include:

- Promptly investigating complaints
- Training your managers, supervisors and workers so they better understand psychological health and safety risks, how these can be managed, and to recognise early warning signs.
- Establishing clear policies on workplace behaviour and effective procedures for managing complaints, which

are understood by all your workers.

- Having and communicating an early intervention policy outlining your expectations of your managers, supervisors and workers.
- Providing information for your workers on how to report psychological health and safety concerns (such as reporting bullying, harassment or work-related violence).

Even when a workers' compensation claim is not accepted or is disputed, it is best practice for you do what you can to try to support your worker and to recover from a psychological injury. You may find some useful suggestions in the Intervening early Chapter.

A key step widely recognised to improve RTW outcomes is for an appropriate manager or supervisor to contact the worker before they go off work and frequently through their recovery process to ask them how they are going, indicate your interest in their welfare and see what help they might need.

Returning to work after a work-related psychological injury:

Not all injured workers can continue to work while they are recovering. RTW means supporting your injured workers to come back to work after they have been absent. It is important you ensure your workers return to a safe environment where psychosocial hazards are identified and controlled, as required by WHS law.

The workers' compensation laws outline the rehabilitation and RTW processes including:

- The right of an injured worker to select their own independent rehabilitation provider paid for by the insurer.
- A safe, timely and durable RTW of the injured worker having regard to the worker's injury.

The aim is to help the injured worker recover and return to safe work. It requires that the injured worker is adequately supported, appropriately medically managed and that you ensure their safety and provide suitable duties and workplace adjustments.

The aim is to help the injured worker recover and return to safe work. It requires the injured worker is adequately supported, appropriately medically managed and that you ensure their safety and provide suitable duties and reasonable workplace adjustments.

While not required under law you may help your workers to RTW following a period of mental ill-health even if it is not work-related using the same principles.

5.6 WHAT ARE EMPLOYERS' OBLIGATIONS?

Generally workers' compensation laws place obligations on the employer to:

- Have workers' compensation insurance.
- Maintain a record of all work-related injuries including where required reporting these to your WHS regulator.
- Have a documented rehabilitation policy describing the steps to be taken if a worker has a work-related injury.
- Consult with the worker and provide information about their rights and responsibilities.
- Treat the worker fairly during and after claim lodgement.
- Notify the insurer of all workplace injuries within a specified timeframe (this timeframe varies by jurisdiction and there are also duties to notify the WHS regulator about some types of injuries and incidents under WHS laws).

- Develop or be involved in the development of the worker's RTW plan and comply with the obligations described in the plan.
- Provide suitable meaningful duties, as far as reasonably practicable when a worker is able to RTW, either on a full-time or part-time basis.

It is considered best practice to have just one person in your organisation responsible for maintaining contact with the injured worker. You should consider who would be someone who is both competent and trusted by your worker.

Consultation with workers and other parties:

You are required to consult with workers and other parties under workers' compensation laws. Your duty to consult varies by jurisdiction. Regardless of whether there is a legal requirement to consult with the injured worker and others, consultation is essential for ensuring good outcomes and should occur throughout the early intervention, rehabilitation, RAW and RTW phases.

5.7 WHAT ARE WORKERS' OBLIGATIONS?

Workers have legislated obligations under workers' compensation laws. Requirements vary by jurisdiction, however generally they are required to:

- Notify you of the injury as soon as practicable (different time limits apply and in some jurisdictions, workers do not have this duty).
- Participate and co-operate in RTW planning approaches.
- Comply with obligations set out in RTW planning approaches including participation in injury management or rehabilitation.
- Make reasonable efforts to RTW to suitable duties when practicable.

Workers should take all reasonable steps to RTW as soon their medical practitioner has certified they have some capacity to work and you can provide suitable work. Such expectations should not prevent your injured workers from taking planned leave or applying for annual and other forms of leave. It is best practice that your worker participates in this planning regardless of their capacity to work.

5.8 WHO HAS A ROLE IN SUPPORTING RECOVERY AND RTW?

This Guide focuses on the obligations of employers and workers under workers' compensation laws and emphasises a supportive relationship between the employer and the worker is essential to achieve a sustainable RTW.

Other parties are also involved in the supporting the recovery and RTW processes and some are listed below.

Treating practitioners are doctors with the primary responsibility for co-ordinating the injured worker's medical care. As such they have a central role in the success of the RTW process. In most cases, for psychological injuries the treating practitioner is the injured worker's general practitioner.

Insurers or agents are organisations that issue workers' compensation policies, manage the collection of premiums and assess and manage workers' compensation claims.

Claims managers are employed by an insurer, agent or self-insurer to manage claims. Their role includes all or some of the following:

- Developing a claim strategy.
- Making decisions.

- Processing compensation and entitlements.
- Liaising with the injured worker making the claim, the employer, the treating practitioner and other stakeholders involved in the claim.
- Co-ordinating the injury management and rehabilitation strategy.

Injury management advisors or rehabilitation providers are people employed by the insurer or agent to provide expert independent advice on injury management, treatment, and rehabilitation and RTW issues. They liaise with the worker, employer and treating practitioners to support the best-practice medical management of injured workers. Injury management advisors or rehabilitation providers generally have a background in a medical, allied health or related area.

In certain jurisdictions, some of these responsibilities may belong to other roles such as case managers, medical advisers or RTW specialists. For more information on how these and other parties may be involved in the recovery and RTW process see the Best Practice of Claims Management for Psychological Injuries or speak with your workers' compensation agent or insurer.

5.9 HOW TO ACHIEVE A TIMELY, DURABLE AND SAFE RECOVERY AND RTW:

Supporting recovery and RTW begins with strong management commitment and good planning to support the injured worker throughout the process.

Successful RTW after a psychological injury involves:

- Identifying any hazard thought to have led to the original injury, or which may be present in new duties and taking all reasonable steps to eliminate or minimise these.
- Effective consultation with everyone involved in the RAW/RTW process including, the injured worker, managers, case manager, injury management advisors and treating practitioners. Maintaining regular contact with your injured worker, particularly if they are away from the workplace is essential for ensuring effective communication and support.
- Clearly establishing the injured worker's capacity to work; what they are able to safely do and when they are likely to return to pre-injury work duties.
- Clearly identifying what support is required and who is responsible for each action.
- Maintaining appropriate confidentiality.
- Considering any other factors that may impact on your worker's capacity to work for example, medication, travel, and any support services.

Generally, workers are required (and it is always best practice) to actively participate in the development of their RTW plan. This includes talking together about what work they think they could do and the support they may need to help them to RTW.

Employers can promote effective RTW processes by ensuring their managers, supervisors, and rehabilitation or RTW co-ordinator are appropriately trained and qualified. Having the knowledge and capability to assist, support and communicate with workers and relevant health professionals is important throughout the planning and implementation processes. The employer should work closely with the rehabilitation or RTW co-ordinator to supervise the RTW process. This will ensure effective communication between all those involved in supporting the worker in their RTW.

Developing a RAW or RTW plan:

An effective workplace-based injury management and rehabilitation includes, a plan for maintaining contact with your injured worker

- Identifying and providing suitable duties for example, modified or alternative work, and hours of work including breaks.
- Providing appropriate support, aids and modifications to the workplace for example access to rest facilities and support programs.
- Providing access to professional counselling or other medical treatments or therapies.
- Briefing co-workers on psychological health and how to support your injured worker – this should be done in consultation with the injured worker and respecting their right to privacy.
- Providing graduated RTW processes including days and hours of work.
- Scheduling reviews to monitor progress.

Suitable or alternative duties:

Suitable duties means meaningful work suited to the worker's current capacity taking account of their medical condition, age, skills, work experience and pre-injury employment. The worker's treating practitioner may recommend the worker returns to work to undertake suitable or alternative duties in the same role or in another role or location. They may also request reasonable workplace support or modifications to support the RTW.

All reasonable efforts must be made to identify suitable or alternate duties your injured worker can do. These should be included in the RTW plan.

Employers, managers, supervisors, case managers, and injury management advisors, in consultation with the injured worker and their health professionals, should determine suitable duties.

You, the treating practitioner and the worker need to work together to identify suitable RAW or RTW duties that are within the workers' capacity and skill and medically approved. Injury management advisors or rehabilitation providers can help you identify suitable duties. Actively suggesting suitable or alternate duties and your willingness to support your worker during their RTW can increase the likelihood of their early safe and durable RTW.

Reasonable modification or support:

After a psychological injury, workers may require reasonable modifications or support to safely RTW. Examples may include:

- Flexible working arrangements - for example allowing your worker later start times, graduated RTW with reduced days and hours, and opportunities to attend medical appointments.
- Modifying some aspects of the job for example:
    - Reducing exposure to high stress situations like giving presentations.
    - Simplifying tasks.
    - Providing greater support like putting instructions in writing.
    - Modifying the work area, for example making it quieter.
    - Allowing different reporting arrangements.
    - Changing the work location if suggested by the treating doctor.

When modifying duties or locations it is important to ensure the worker does not feel stigmatised or isolated.

How to overcome barriers to successful recovery:

To overcome any barriers to a successful recovery and RTW following a psychological injury you can:

- Strengthen your WHS and workers' compensation systems, policies or procedures.
- Ensure there is visible management commitment to injury prevention and RTW.
- Train managers and supervisors in effective RAW and RTW.
- Try to build or repair a positive relationship with your injured worker.
- Maintain your worker's connection with their organisation, supervisor and colleagues.
- Support supervisors and make sure they have adequate time to support your worker when they RAW or RTW.
- Improve attitudes and address misunderstandings about psychological injuries, for example that workers will not recover, will require a lengthy absence from work, or will not be able to return to pre-injury duties.
- Regardless of liability, you should focus on RAW or RTW. Whatever the outcome of the liability decision, the worker will be assisted. Trust medical experts to identify the severity of your worker's injury.
- If you are concerned the RAW and RTW will disrupt the work of others, discuss how these issues can be better managed.

If your worker has both a psychological injury and a physical injury, it is common they can have longer periods off work and a more complicated RAW or RTW process. Specialist tailored support may be needed for further information see Where to go for help.

A range of practical advice on overcoming these barriers can be found on the heads-up website and from organisations listed in Where to go for help. You should regularly review your RAW and RTW policies and processes to identify ways to improve them. This can include:

- Reviewing and monitoring your organisation's RAW and RTW performance.
    - Consider reports provided by case managers.
    - Check suitable duties were provided.
    - Ask workers about their RTW experiences.
    - Evaluate the effectiveness of consultation arrangements with everyone who has a role in RAW and RTW.
- Assessing whether your policies and procedures reflect best practice and if required implementing improvements.
- Checking your managers and supervisors have the knowledge and skills they need to assist injured workers.
- Maintaining and reviewing a register of RTW activities including early intervention approaches, modified duties and reasonable adjustments.

- Reviewing and monitoring your individual workers' RAW and RTW arrangements at critical milestones to check they remain appropriate.

Mental health promotion initiatives, though optional can help create a positive organisational culture which is supportive of workers experiencing psychological injuries including during RAW/RTW periods and after they have recovered. As part of a RAW/RTW plan, they can lay the groundwork for a smoother transition back into the workplace. For more information on mental health promotion suggestions visit your jurisdiction's website or heads-up.

APPENDIX 1 – WHERE TO GO FOR HELP

All WHS regulators and workers' compensation authorities have useful information, resources and tools on their websites. Many have specific guidance on workplace stress, harassment, bullying or work-related violence. There is also some information on best practice approaches which could beyond those required to meet your duties.

WHS regulators

Comcare

www.comcare.gov.au

general.enquiries@comcare.gov.au

1300 366 979

NT WorkSafe

www.worksafe.nt.gov.au

ntworksafe@nt.gov.au

1800 019 115

SafeWork NSW

www.safework.nsw.gov.au

contact@safework.nsw.gov.au

13 10 50

SafeWork SA

www.safework.sa.gov.au

help.safework@sa.gov.au

1300 365 255

Workplace Health and Safety Queensland

www.worksafe.qld.gov.au

1300 362 128

WorkSafe ACT

www.worksafe.act.gov.au

worksafe@act.gov.au

02 6207 3000

WorkSafe Tasmania

www.worksafe.tas.gov.au

wstinfo@justice.tas.gov.au

1300 366 322 (within Tasmania)

WorkSafe Victoria

www.worksafe.vic.gov.au

info@worksafe.vic.gov.au

1800 136 089 or 03 9641 1444

WorkSafe WA

www.commerce.wa.gov.au/WorkSafe

safety@dmirs.wa.gov.au

1300 307 877 (within Western Australia)

Workers' compensation authorities

Comcare

www.comcare.gov.au

general.enquiries@comcare.gov.au

1300 366 979

NSW State Insurance Regulatory Authority (SIRA)

www.sira.nsw.gov.au

contact@sira.nsw.gov.au

1300 555 727

NT WorkSafe

www.worksafe.nt.gov.au

ntworksafe@nt.gov.au

1800 019 115

ReturntoWorkSA

www.rtwsa.com

info@rtwsa.com

131 855

WorkCover Queensland

www.worksafe.qld.gov.au

1300 362 128

WorkCover WA

www.workcover.wa.gov.au

1300 794 744

WorkSafe ACT

www.worksafe.act.gov.au

worksafe@act.gov.au

02 6207 3000

WorkSafe Tasmania

www.worksafe.tas.gov.au

wstinfo@justice.tas.gov.au

1300 366 322

WorkSafe Victoria

www.worksafe.vic.gov.au

info@worksafe.vic.gov.au

1800 136 089 or 03 9641 1444

Other support services

Australian Human Rights Commission

www.humanrights.gov.au

1300 656 419 or 02 9284 9888

Beyond Blue

www.beyondblue.org.au

1300 224 636

Black Dog Institute

www.blackdoginstitute.org.au

Fair Work Commission

www.fwc.gov.au

1300 799 675

Headsup

www.headsup.org.au

Lifeline

www.lifeline.org.au

13 11 14

SANE

www.sane.org

1800 18 7263

Suicide call back service

www.suicidecallbackservice.org.au

1300 659 467

SuperFriend

www.superfriend.com.au

Safe Work Australia

Model Code of Practice: How to Manage Work Health and Safety Risks

Model Code of Practice: Work health and safety consultation, co-operation and co-ordination

Model Code of Practice: Hazardous manual tasks

Guide: How to determine what is reasonably practicable to meet a health and safety duty

Interpretive Guideline: The meaning of 'reasonably practicable'

Guide: Preventing and responding to workplace bullying

Guide: Dealing with workplace bullying – a worker's guide

Guide: Managing the risk of fatigue at work

Guide: Fatigue Management – a Workers' Guide

The Principles of Good Work Design Handbook

Comparison of Workers Compensation Arrangements in Australia and New Zealand

Taking Action: A Best Practice Framework for the Management of Psychological Claims in the Australian Workers' Compensation Sector.

APPENDIX 2 - GLOSSARY

Term	Description
Control measure	A 'control measure' is an action taken to eliminate or minimise health and safety risks so far as is reasonably practicable. A hierarchy of control measures is set out in the WHS Regulations to assist duty holders to select the highest control measures reasonably practicable. Note: The WHS Regulations also refer to a control measure as a risk control measure or a risk control. In this document, control measure is used throughout.
Early intervention	Interventions including interim risk controls, for workers displaying or telling their managers about early signs and symptoms of psychological or physical harm. These aim to reduce the severity of harm by addressing causal factors and or providing access to appropriate support and treatment.
Hazard	A situation or thing that has the potential to harm a person. Hazards at work may include for example hazardous manual tasks, noisy machinery, a moving forklift, chemicals, electricity, working at heights, as well as psychosocial factors such as repetitive work, high workloads, aggressive or abusive behaviours, including bullying and violence at the workplace.
Health	WHS laws define health as including both physical and psychological health.
Individual factors	These are any attribute or characteristic of the individual that may increase the likelihood of developing a disease or injury.
Managing risk	This is a process set out in the WHS Regulations to eliminate health and safety risks so far as is reasonably practicable, or if this is not reasonably practicable, minimise the risks so far as is reasonably practicable. It includes identifying hazards, assessing and implementing control measures, and reviewing and maintaining the control measures to ensure their ongoing effectiveness.
Mental health conditions or disorders	Clinically significant sets of symptoms consistent with the Diagnostic and Statistical Manual of Mental Disorders which cause distress and interfere with a person's functioning. These will include conditions considered work-related psychological injury see below.
Mental health	A state of wellbeing in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.
Must	'Must' indicates a legal requirement exists that must be complied with.

Term	Description
Psychological injury	This term rather than mental health conditions or disorders is used throughout this Guide to be consistent with the WHS and workers' compensation legislation. A disorder diagnosed by a medical practitioner which includes a range of recognised cognitive, emotional, physical and behavioural symptoms. These may be short term or occur over many months or years, and can significantly affect how a person feels, thinks, behaves and interacts with others. These are sometimes also known as mental health conditions or disorders see above.
Psychosocial hazards	Factors in the design or management of work that increase the risk of work-related stress which can then lead to psychological or physical harm. These are sometimes also called psychological hazards, work-related stressors or organisational factors. Examples are listed.
Recovery at work (RAW)	Remaining at work while recovering from a psychological injury and receiving compensation or entitlements under a claim.
Return to work (RTW)	When a person on a workers' compensation claim returns to work after a period of absence due to an injury (with the same employer or a different employer; with the same or modified role). Return to work can be a graduated process in which the workers workload and or hours increase over time.
Risk	The possibility that harm (death, injury or illness) might occur when someone is exposed to a hazard.
Should	'Should' indicates a recommended course of action.
Suitable duties	Suitable duties means meaningful work that is suited to the worker's current capacity taking account of their medical condition, age, skills, work experience and pre-injury employment.
Specialist advice	This includes advice from work health and safety professionals with expertise and experience in psychological health and safety. This can include occupational physicians, organisational psychologists, ergonomists, certified safety professionals or rehabilitation providers.
Workplace health promotion	Refers to the combined efforts of employers, employees and society to improve the health and wellbeing of people at work. It can target topics such as healthy eating and sleep habits, physical activity, reducing alcohol, tobacco and illicit drug consumption as well as personal development and learning for example such as resilience training.
Work-related psychological injury	Refers to work-related psychological harm that could result in a loss of function and may be compensable.

Term	Description
Work-related stress	The physical and psychological response of a worker who perceives that the demand of their work or workplace environment exceed their ability or resources to cope. Work-related stress does not itself constitute physical or psychological harm or injury, but can result in an injury if stress is prolonged and or severe.

APPENDIX 3 - SCENARIOS

Scenario 1 – Compliance versus best practice approaches

XYZ Legal and ABC Legal are two law firms specialising in family law and criminal law. Lawyers in both firms experience high workloads and exposure to trauma working on cases associated with domestic violence, child sexual abuse and other crimes.

XYZ Legal (on the left) shows compliance with health and safety laws so far as reasonably practicable. The example on the right (ABC Legal) shows a greater level of management commitment to improve the way work is designed and managed. ABC Legal can demonstrate higher order control measures in the hierarchy of controls. ABC Legal also shows how health promotion activities at work can help encourage healthy behaviours, and is better practice. They are able to provide evidence that they are ensuring health and safety so far as reasonably practicable.

XYZ Legal's approach - compliant	**ABC Legal's approach - Best practice**

XYZ Legal had a high turnover of staff and low morale in the workplace and a culture where continuously high levels of stress and long work hours were accepted as part of the job and any sign of 'weakness' could cost a lawyer their job. Staff were exhausted and decided to seek help from the WHS regulator.
 	
A WHS inspector visited the firm and issued improvement notices to the senior partners requiring them to manage the risks of psychological harm to their workers. The senior partners introduced a psychological health and safety management program to:
 	
• consult regularly with staff to identify hazards and risks, monitor and manage workloads and resources
• establish a program for examining work activities to identify psychosocial hazards and assess and control risks from:
  ◦ high workloads,
  ◦ exposure to traumatic events and distressed or angry and aggressive clients, and
  ◦ bullying behaviour from partners and colleagues
• develop policies and procedures for:
  ◦ acceptable behaviour in the workplace
  ◦ equitable allocation of work
• train managers and staff to recognise the early signs of stress, and to support workers
• introduce a procedure for reporting and investigating incidents, and
• provide access to counselling services.
 	
The lawyers at XYZ now have additional resources during high work periods like trials, improved communication and support within the work team, and fairer work allocation.
	ABC Legal is a successful law firm with a high level of job satisfaction amongst its workers. Recognising the stressful nature of their work, the senior partners focused on preventing psychological harm, so far as reasonably practicable. They assess work demands, level of control, work relationships, emotional and practical support, recognition and reward and organisational fairness.
	
	Unlike XYZ Legal, staff at ABC Legal feel free to raise concerns when they identify psychosocial hazards and to ask for help when they have difficulty managing workloads and responding to emotionally demanding cases. Bullying, harassment and aggressive behaviours are not tolerated. The lawyers working at ABC Legal have:
	
	• file flagging to avoid inadvertent exposure to cases that may be distressing
	• access to flexible work practices
	• more control in deciding cases they take on and how they manage the workload
	• additional resources and support during periods of intense work, like trials or a court deadline
	• opportunities to work on a greater variety of legal cases
	• mentoring from more senior staff
	• input into management decisions, and
	• 'time out' to participate in social activities and physical health and wellbeing program.
	
	ABC Legal also built on their good practice by introducing a health and wellbeing program in consultation with staff. The program consisted of:
	
	• free yoga and meditation classes
	• resilience training
	• nutrition and mental health seminars

XYZ Legal's approach - compliant	ABC Legal's approach - Best practice
Staff morale and work performance began to improve because workloads were more manageable, staff felt better supported and communication improved.	• weekly fruit baskets, and • access to counselling services. Having already established a supportive work environment, the program was very successful and had a high level of staff participation

Scenario 2 - RTW scenario

Sally is the CEO of a small organisation providing in-home care for people with disabilities and special needs. She employs two office staff and three teams, each consisting of a team supervisor and five carers. The team supervisors are responsible for providing supervision, mentoring, assessing risks and client needs and allocating tasks to the carers in their teams.

One day Sally received a medical certificate stating that Jane, one of the carers, was suffering from a work-related psychological injury and would be unable to RTW for two weeks. Sally contacted Jane's supervisor, Peter, to find out more information. Peter said Jane appeared to be struggling with the workload as she was often running late for her appointments. On discussing the situation with Jane to ensure she had the support she needed, Sally found Jane had been having difficulty with Peter's management and communication style. Jane also felt her workload and the time pressure was excessive. Jane said she had asked Peter on a number of occasions for help in dealing with a client prone to violent behaviour but Peter had ignored her requests. Jane said she had been too scared to report these problems for fear of losing her job. Her doctor recommended she lodge a workers' compensation claim.

Sally had been unaware of these issues and told Jane that she would immediately investigate and take steps to resolve them.

The management approach shown on the left sets compliance, while the example on the right includes additional measures that could be taken as best practice.

Compliant	Best practice
Intervene early • Make and maintain weekly contact with Jane • Contact the workers' compensation insurer for advice on the claims management process • Encourage Jane to follow the advice of her doctor.	Make and maintain weekly contact with Jane • Contact the workers' compensation insurer for advice on the claims management process • Provide Jane with information on community-based counselling and support services and encourage Jane to discuss their suitability with her doctor and workers' compensation insurer • Consider options for alternative or modified duties, possibly in another team.
Identify the hazards	
Interview Jane to identify issues • Difficult relationship with manager • Difficult communication with manager • Workload pressure • Time pressure Client violence and aggression.	Interview Jane to identify issues • Difficult relationship with manager • Difficult communication with manager • Workload pressure • Time pressure • Client violence and aggression **Consult other workers in team to identify hazards**

Compliant	Best practice
	• Difficult relationships with manager • Difficult communication with manager • Workload pressure • Time pressure • Client violence and aggression.
Assess the hazards	
In consultation with workers and Peter • Evaluate workload for each worker informed by industry standards • Interview Peter to understand the team's workload and supervisory practices.	In consultation with workers • Evaluate workload for each worker and manager using industry standards, and research evidence on work design, and expert advice from community-based disability service providers • Interview Peter to understand the team's workload and supervisory practices • Consider how team performance is measured and the possible effect this may have on workload and supervision • Undertake a client review with specialist advice to determine additional strategies for identifying and responding to triggers for violent behaviour.
Control the risks by determining what is reasonable to do	
In making the workplace safe for Jane to RTW, and to minimise risk to other workers, Sally made the following changes: • re-allocated clients to even out the workload across teams • implemented an work-related violence policy including procedures for carers to work in pairs where difficult clients are involved • established weekly team meetings to monitor the workloads, encourage more open communication and discuss issues as they arise, and • provided leadership training sessions for the three team supervisors including training in line management competencies for preventing and reducing work-related stress.	In making the workplace safe for Jane to RTW, and to minimise risk to other workers, Sally made the following changes: • re-allocated clients to even out the workload across teams • implemented an work-related violence policy including procedures for carers to work in pairs where difficult clients are involved • established weekly team meetings to monitor the workloads, encourage more open communication and discuss issues as they arise • provided leadership training sessions for the three team supervisors including training in line management competencies for preventing and reducing work-related stress • introduced a new reporting process to progress issues if they were not resolved within the teams, and • provided mental health awareness training for all staff to facilitate a supportive work environment.

Compliant	Best practice
Establish and maintain the RTW	
As part of the RTW plan Sally agreed to temporarily place Jane with a different team and to monitor this arrangement while the organisational changes were taking effect. She also organised a number of individual and professionally facilitated meetings between Jane and Peter in order to enable them to agree on their working relationship and resume working together. Regular reviews were scheduled into the RTW plan. After four weeks Jane returned to work in her full capacity, working in Peter's team. Sally had ensured any barriers to returning to work were identified and addressed where possible. Supervisors and staff were supportive towards Jane on her return and all the carers felt more supported in their roles with the changes Sally and Peter had implemented.	

#Noise

MANAGING NOISE AND PREVENTING HEARING LOSS AT WORK

Code of Practice - SEPTEMBER 2015

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FORWARD:

A draft of this Code of Practice was released for public consultation on 7 December 2010 and was endorsed by the Workplace Relations Ministers' Council on 10 August 2011.

SCOPE AND APPLICATION:

This Code of Practice applies to all types of work and all workplaces covered by the WHS Act where there is the potential for exposure to noise that can contribute to hearing loss. It provides practical guidance to persons conducting a business or undertaking on how noise affects hearing, how to identify and assess exposure to noise and how to control health and safety risks arising from hazardous noise.

Although the WHS Regulations for noise are limited to managing the risks of hearing loss, the duties in the WHS Act extend to all health and safety risks arising from the conduct of a business or undertaking and therefore this Code also includes information about other agents that may contribute to hearing loss in Appendix A.

How to use this Code of Practice:

In providing guidance, the word 'should' is used in this Code to indicate a recommended course of action, while 'may' is used to indicate an optional course of action.

This Code also includes various references to sections of the WHS Act and Regulations which set out the legal

requirements. These references are not exhaustive. The words 'must', 'requires' or 'mandatory' indicate that a legal requirement exists and must be complied with.

1. INTRODUCTION:

Hazardous noise can destroy the ability to hear clearly and can also make it more difficult to hear sounds necessary for working safely, such as instructions or warning signals.

Managing the risks related to noise will assist in:

- Protecting workers from hearing loss and disabling tinnitus (ringing in the ears or head).
- Improving the conditions for communication and hearing warning sounds.
- Creating a less stressful and more productive work environment.

1.1 WHO HAS HEALTH AND SAFETY DUTIES IN RELATION TO NOISE?

A **person conducting a business or undertaking** has the primary duty under the WHS Act to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

A person conducting a business or undertaking has more specific obligations under the WHS Regulations to manage the risks of hearing loss associated with noise at the workplace, including:

- ensuring that the noise a worker is exposed to at the workplace does not exceed the exposure standard for noise
- providing audiometric testing to a worker who is frequently required to use personal hearing protectors to protect the worker from hearing loss associated with noise that exceeds the exposure standard.

Designers, manufacturers, suppliers, importers and installers of plant or structures that could be used for work must ensure, so far as is reasonably practicable, that the plant or structure is without risks to health and safety. Designers and manufacturers of plant must ensure the plant is designed and manufactured so that its noise emission is as low as reasonably practicable.

Designers, manufacturers, suppliers and importers must also provide information about the noise emission values of the plant and any conditions necessary for minimising the risk of hearing loss and other harm (see Chapter 7 of this Code).

Officers, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks that arise from noise.

Workers have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace. For example, if personal hearing protectors are provided by the person conducting the business or undertaking, the worker must use them in accordance with the information, instruction and training provided on their use.

1.2 THE MEANING OF KEY TERMS:

Decibel (dB) is the unit for measuring sound levels.

Exposure standard for noise is defined in the WHS Regulations as an LAeq,8h of 85 dB(A) or an LC,peak of 140 dB(C). There are two parts to the exposure standard for noise because noise can either cause gradual hearing loss over a period of time or be so loud that it causes immediate hearing loss.

LAeq,8h means the eight hour equivalent continuous A-weighted sound pressure level in decibels, referenced to 20 micropascals, determined in accordance with AS/NZS 1269.1. This is related to the total amount of noise energy a person is exposed to in the course of their working day. It takes account of both the noise level and the length of time the person is exposed to it. An unacceptable risk of hearing loss occurs at LAeq,8h values above 85 dB(A).

LC,peak means the C-weighted peak sound pressure level in decibels, referenced to 20 micropascals, determined in

accordance with AS/NZS 1269.1. It usually relates to loud, sudden noises such as a gunshot or hammering. LC,peak values above 140 dB(C) can cause immediate damage to hearing.

Hazardous noise in relation to hearing loss means noise that exceeds the exposure standard for noise in the workplace.

Risk control means taking action to first eliminate health and safety risks so far as is reasonably practicable, and if that is not possible, minimising the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard.

1.3 WHAT IS REQUIRED TO MANAGE THE RISKS OF HEARING LOSS?

Regulation 34-38: In order to manage risk under the WHS Regulations, a duty holder must:

a) Identify reasonably foreseeable hazards that could give rise to the risk.

b) Eliminate the risk so far as is reasonably practicable.

c) If it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of control.

d) Maintain the implemented control measure so that it remains effective.

d) Review, and if necessary revise, risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

This Code provides guidance on how to manage the risks of hearing loss associated with noise by following a systematic process that involves:

- Identifying sources of noise that may cause or contribute to hearing loss.
- If necessary, assessing the risks associated with these hazards.
- Implementing risk control measures.
- Reviewing risk control measures.

Guidance on the general risk management process is available in the:

Code of Practice: How to Manage Work Health and Safety Risks.

Consulting your workers:

Consultation involves sharing of information, giving workers a reasonable opportunity to express views and taking those views into account before making decisions on health and safety matters.

Section 47: The WHS Act requires that you consult, so far as is reasonably practicable, with workers who carry out work for you who are (or are likely to be) directly affected by a work health and safety matter.

Section 48: If the workers are represented by a health and safety representative, the consultation must involve that representative.

Consultation with workers and their health and safety representatives is required at each step of the risk management process. By drawing on the experience, knowledge and ideas of your workers you are more likely to identify all hazards and choose effective control measures.

You must also consult your workers when proposing to make any changes that may affect their health and safety, for example when planning to buy new machinery or equipment.

Health and safety representatives must have access to relevant information such as noise exposure data and potential control options. If you have a health and safety committee, you should engage the committee in the process as well.

Consulting, co-operating and coordinating activities with other duty holders:

Section 46: The WHS Act requires that you consult, co-operate and co-ordinate activities with all other persons who have a work health or safety duty in relation to the same matter, so far as is reasonably practicable.

Sometimes you may share responsibility for a health and safety matter with other business operators who are involved in the same activities or who share the same workplace. In these situations, you should exchange information to find out who is doing what and work together in a co-operative and coordinated way so that all risks are eliminated or minimised as far as reasonably practicable.

For example, if you own or manage an on-hire business and your workers work at other workplaces then you must consult the host business so far as is reasonably practicable to determine if your workers could be exposed to hazardous noise and agree on what you each will do to control any associated risks.

Further guidance is available in the

Code of Practice: Work Health and Safety Consultation, Co-operation and Co-ordination.

2. NOISE AND ITS EFFECT ON HEALTH AND SAFETY:

2.1 HOW DOES HEARING LOSS OCCUR?

Hazardous noise affects the functioning of the inner ear, which may cause temporary hearing loss. After a period of time away from noise, hearing may be restored. With further exposure to hazardous noise, the ear will gradually lose its ability to recover and the hearing loss will become permanent.

Permanent hearing loss can also occur suddenly if a person is exposed to very loud impact or explosive sounds. This type of damage is known as acoustic trauma.

Permanent hearing loss results from the destruction of hair cells in the inner ear. These cells cannot be replaced or repaired by any presently known medical treatments or technology.

Usually, hazardous noise first affects the ability to hear high-frequency (high-pitched) sounds. This means that even though a person can still hear some sounds, conversation will start to sound ‘muffled’ and a person may find it difficult to understand what is being said.

Communication difficulties occur especially when there are competing background noises. Modern hearing aids may improve the ability to hear speech but they are unable to completely restore the clarity of the full hearing function.

Workers exposed to hazardous noise may also experience tinnitus, which could become permanent. When severe, it may disrupt sleep, reduce concentration, make people extremely irritable and lead to depression.

The degree of hearing loss that occurs is dependent on how loud the noise is, how long someone is exposed to it and, to some extent, individual susceptibility. The frequency or pitch can also have some effect on hearing loss, since high-pitched sounds are more damaging than low-pitched ones.

Exposure to a number of common industrial chemicals and some medications can also cause hearing loss or exacerbate the effects of noise on hearing. These substances are called ototoxic substances.

Ototoxic substances absorbed into the bloodstream may damage the cochlea in the inner ear and/or the auditory pathways to the brain, leading to hearing loss and tinnitus. Hearing loss is more likely if exposure is to a combination of substances or a combination of the substance and noise.

There is also some evidence that exposure to hand transmitted vibrations can exacerbate the effects of noise on hearing.

Further information on these other causes of hearing loss is provided in Appendix A.

2.2 HOW MUCH NOISE IS TOO MUCH?

Whether the exposure standard of 85 dB(A) averaged over eight hours is exceeded depends on the level of noise involved and how long workers are exposed to it.

Peak noise levels greater than 140 dB(C) usually occur with impact or explosive noise such as sledge-hammering or a gun shot. Any exposure above this peak can create almost instant damage to hearing.

Decibels are not like normal numbers. They can't be added or subtracted in the normal way. The decibel scale is logarithmic. On this scale, an increase of 3 dB therefore represents a doubling or twice as much sound energy. This means that the length of time a worker could be exposed to the noise is reduced by half for every 3 dB increase in noise level if the same noise energy is to be received.

Table 1 below demonstrates the length of time a person without hearing protectors can be exposed before the standard is exceeded.

Table 1 Equivalent noise exposures:

LAeq,8h = 85 dB(A)	
Noise Level dB(A)	**Exposure Time**
80	16 hours[2]
82	12hours[1]
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7.5 minutes
106	3.8 minutes
109	1.9 minutes
112	57 seconds
115	28.8 seconds
118	14.4 seconds
121	7.2 seconds
124	3.6 seconds
127	1.8 seconds
130	0.9 seconds

The adjustment factor for extended workshifts shown in Table 3 of this Code is taken into account.

Essentially, a worker who is exposed to 85 dB(A) for 8 hours receives the same noise energy as someone exposed to 88 dB(A) for 4 hours, with the balance of the day in a very quiet environment. In both cases the exposure standard is not being exceeded. However, being exposed to 88 dB(A) for more than 4 hours would mean that the standard is exceeded. Similarly, if a worker is using a machine that generates 121 dB(A) then the exposure standard would be exceeded after only 7.2 seconds.

There is a big range in different people's susceptibility to hearing loss from noise. Research shows that 8-hour average daily noise exposure levels below 75 dB(A) or instantaneous peak noise levels below 130 dB(C) are unlikely to cause hearing loss. With progressively increasing levels, the risk becomes greater.

The WHS Regulations set the exposure standard for noise at an LAeq,8h of 85 dB(A) and a peak noise level at 140 dB(C), which protects most but not all people. Therefore, workplace noise should be kept lower than the exposure standard for noise if reasonably practicable.

2.3 OTHER EFFECTS OF NOISE:

Noise at levels that do not damage hearing can have other adverse health effects. This can arise when noise chronically interferes with concentration and communication. Persistent noise stress can increase the risk of fatigue and cardiovascular disorders including high blood pressure and heart disease.

Although safe levels to guard against these effects have not yet been fully determined, as a guide, the risk of adverse health effects can be minimised by keeping noise levels below:

- 50 dB(A) where work is being carried out that requires high concentration or effortless conversation
- 70 dB(A) where more routine work is being carried out that requires speed or attentiveness or where it is important to carry on conversations.

These levels include the noise from other work being carried out within the workplace.

To work safely, workers must be able to hear warning signals above any other noise (ambient noise) at the workplace. For reversing alarms on mobile plant, the guidance in ISO:9533: 2010 Earth-moving machinery – Machine-mounted audible travel alarms and forward horns – Test methods and performance criteria should be followed. This requires the noise level of the alarm at potential reception points to be at least as high as the noise from the engine under high idle.

For other situations, the levels needed are higher – at least 65 dB(A) and more than 15 dB(A) greater than the ambient noise level at any position in the signal reception area. More detailed guidance on assessing the audibility of warning signals can be found in ISO 7731:2003 Ergonomics – Danger signals for public and work areas – Auditory danger signals.

3. HOW TO IDENTIFY THE HAZARDS:

The potential for noise to be hazardous is not always obvious. Hazard identification is a way of finding out which work activities have the potential to contribute to hearing loss or other harm caused by noise.

Exposure to noise is cumulative and a worker may perform a number of noisy work activities over time which, in combination, may expose the worker to hazardous noise.

3.1 HOW TO FIND NOISE HAZARDS:

You may not need specialist skills to identify sources of hazardous noise, but you must undertake the process in consultation with your workers and their health and safety representatives. As a guide, if you need to raise your voice to communicate with someone about one metre away, the noise is likely to be hazardous to hearing.

A checklist is provided in Appendix B to help you further with this process.

Inspect the workplace:

Regularly walking around the workplace, talking to workers and observing how things are done can help you identify noise hazards. Find out where noise is coming from and which tasks or processes produce noise. Take immediate action to control noise where this is possible, for example fix loose panels that are vibrating and rattling during

machine operation.

Review available information:

Information regarding noise levels from the manufacturers or suppliers of plant and equipment used at the workplace should be obtained.

Information and advice about hazards and risks relevant to particular industries and work activities is also available from regulators, industry associations, unions, technical specialists and safety consultants.

You should check whether any workers' compensation claims have been made for hearing loss and if any hearing loss or tinnitus has been found during repeat audiometric testing. If a worker's hearing has been affected and has been attributed to a particular task, then a hazard may exist that could affect other workers.

Table 2 below lists common noise sources and their typical sound levels which can be used to compare whether noise in the workplace sounds as loud as or louder than 85 dB(A).

Table 2 Common noise sources and their typical sound levels:

Typical sound level in dB	Sound source
140	Jet engine at 30m
130	Rivet hammer (pain can be felt at this threshold)
120	Rock drill
110	Chain saw
100	Sheet-metal workshop
90	Lawn-mower
85	Front-end loader
80	Kerbside Heavy traffic
	Lathe
70	Loud conversation
60	Normal conversation
40	Quiet radio music
30	Whispering
0	Hearing threshold

3.2 WHAT HAPPENS NEXT?

In consultation with your workers and health and safety representatives, make a list of all noisy activities that may pose a risk to the health and safety of persons at the workplace. If you have answered 'yes' to any of the questions in Appendix B, it is likely that your workers are being exposed to hazardous noise. If you are unsure about the level of exposure or how to eliminate or minimise the risks effectively, you should take the next step to assess the risks of hearing loss.

4. HOW TO ASSESS THE RISKS:

4.1 WHEN SHOULD A RISK ASSESSMENT BE CONDUCTED?

If you have identified any noisy activities that may expose your workers or other people at your workplace to hazardous noise then, unless you can reduce the exposures to below the standard immediately, you should assess the risks by carrying out a noise assessment.

A noise assessment will help you:

- Identify which workers are at risk of hearing loss.
- Determine what noise sources and processes are causing that risk.
- Identify if and what kind of noise control measures could be implemented.
- Check the effectiveness of existing control measures.

A noise assessment may not always need measurement. For example, if only one activity at the workplace – the use of a single machine – involves noise above 85 dB(A) and the manufacturer has provided information about the machine's noise levels when it is operated in particular ways, then a sufficient assessment can be made without measurement. More complex situations may require measurement to accurately determine a worker's exposure to noise, such as workplaces with variable noise levels over a shift and jobs where workers move in and out of noisy areas.

4.2 WHO CAN DO A NOISE ASSESSMENT?

A noise assessment should be done by a competent person in accordance with the procedures in AS/NZS 1269.1 *Measurement and assessment of noise immission and exposure*. The more complex the situation, the more knowledgeable and experienced the person needs to be.

A competent person is one who has accurately calibrated noise measuring instruments and, through training and experience:

- Understands what is required by the WHS Regulations for noise.
- Knows how to check the performance of the instruments.
- Knows how to take the measurements properly.
- Can interpret the results of the noise measurements.

4.3 HOW SHOULD A NOISE ASSESSMENT BE DONE?

The way a noise assessment is done will depend upon:

- The type of workplace.
- The number of persons potentially at risk from exposure to hazardous noise.
- The information already available on noise at the workplace.

A noise assessment should be done during a typical working shift and should determine:

- The noise levels produced during various tasks carried out during the shift.
- How long your workers are exposed to noise during each of these tasks.

An assessment should take into account:

- Plant, equipment and other sources of noise in operation at the workplace.
- How work activities are carried out.
- The length of the shift.
- Environmental factors (e.g. types of walls, surfaces, layout of work stations).

This means that adequate information about the tasks and their frequency is needed, so consultation with workers and

their supervisors is essential.

Noise measurements should be taken at 0.1 to 0.2 metres from the worker's ear canal entrance over a period of time that is representative of the noise produced during the tasks.

In most situations the use of a hand-held integrating sound level meter will produce the most useful information for choosing appropriate noise control measures. In situations where workers are highly mobile or access for the person taking the measurement is difficult or unsafe, it may be more appropriate to use personal sound exposure meters (dose meters).

Noise measurements should include the combined noise levels of all the tools, machines and processes present as well as the background noise from ventilation systems, cooling compressors, circulation pumps, etc. To identify which noise sources contribute most to workers' exposures, the noise from each source or work activity should also be measured separately.

The Ready Reckoner in Appendix C may be used to work out the total LAeq,8h for combinations of noise levels and exposure duration for each work activity and the relative importance of each.

If a group of workers is exposed to identical sources of noise and their exposure is likely to be the same, then you do not need a separate assessment for each worker. A representative assessment can be done for one or more of the workers.

Extended work shifts:

Shift durations of 10 hours or longer involve a degree of risk greater than that indicated by the 8 hour measurement LAeq,8h. This increase in risk arises because of the additional damaging effect of continuous exposure to noise after 10 hours. The risk may be further increased if there is reduced recovery time between successive shifts.

If workers work shifts of 10 hours or more, the adjustment factor for extended shifts as set out in AS/NZS 1269.1 (see Table 3) should be added to the measured LAeq,8h before comparing it with the 85 dB(A) exposure standard for noise.

Table 3 Adjustments to LAeq,8h for extended work shifts:

Shift length	Adjustment added to measured LAeq,8h dB(A)
10 hrs or more to less than 14 hrs	+ 1
14 hrs or more to less than 20 hrs	+ 2
20 hrs or more	+ 3

For example, if a worker works 12-hour shifts and the typical LAeq,8h has been determined to be 93 dB(A), an additional one decibel is added to give an adjusted LAeq,8h of 94 dB(A). Hence the worker's LAeq,8h exceeds the exposure standard for noise by 9 dB(A). For a fully worked example see Appendix C.

If workers work more than five days per week, the weekly averaging procedure of AS/NZS 1269.1 should be used.

4.4 WHAT INFORMATION SHOULD BE INCLUDED IN A NOISE ASSESSMENT REPORT?

Noise assessment reports should show that the assessment was done properly and that all factors were taken into account. An assessment report should contain all the information shown in Appendix D. Noise assessment reports should be used to select appropriate control measures. The main findings should be included in training for all workers. The reports should be made available to managers, health and safety representatives and regulators.

5. HOW TO CONTROL THE RISKS:

The most important step in the risk management process involves eliminating the risks, or if that is not reasonably practicable, minimising the risks so far as is reasonably practicable.

5.1 THE HIERARCHY OF RISK CONTROL:

The WHS Regulations require duty holders to work through a hierarchy of control to choose the control measure that most effectively eliminates or minimises the risk in the circumstances. The hierarchy ranks the ways of controlling the risk of hearing loss from noise from the highest level of protection and reliability to the lowest so that the most effective controls are considered first.

Effective risk control may involve a single control measure or a combination of two or more different controls.

Eliminate the risk:

The most effective control measure is to eliminate the source of noise completely, for example by ceasing to use a noisy machine, changing the way work is carried out so hazardous noise is not produced or by not introducing the hazard into the workplace.

Minimise the risk:

If it is not reasonably practicable to eliminate the source of noise, you must minimise the risk associated with hearing loss so far as is reasonably practicable. This includes ensuring that the noise does not exceed the exposure standard by choosing one or more of the following measures:

- Substitute the hazard with plant or processes that are quieter.
- Modify plant and processes to reduce the noise using engineering controls.
- Isolate the source of noise from people by using distance, barriers, enclosures and sound-absorbing surfaces.

If there is a remaining risk, it must be minimised so far as is reasonably practicable by implementing administrative controls, and if a risk still remains, then suitable personal protective equipment must be provided and used. These two types of control measures, when used on their own, tend to be least effective in minimising risks because they rely on human behaviour and supervision.

5.2 SUBSTITUTING PLANT OR PROCESSES TO REDUCE NOISE:

Buy 'quiet'

One of the most cost-effective and long-term ways of reducing noise at work is to introduce a purchasing and hiring policy to choose the quietest plant for the job. This can be done by obtaining information on noise emission (for example, data on sound power level or sound pressure level at the operator position) from the manufacturer, importer or supplier of plant and comparing it to determine the quietest plant.

Ask the suppliers about the likely noise emission under the particular conditions in which you will operate the machinery, as well as under standard test conditions. If you ask the same question to all suppliers you can compare information. Sound power level data will only ever be a guide as many factors affect the actual noise levels experienced by your workers, but it will help you buy quieter machines.

You should purchase or hire only from suppliers who can demonstrate a low noise design, with noise control as a standard part of the machine, not as an optional extra.

Change the way you do the job:

A different way of doing the job may provide the same result with a lot less noise. For example, bending metal in a vice or a press is quieter than hammering it into shape, welding is generally quieter than riveting, gluing is quieter than hammering in nails, clipping is quieter than stapling, and lowering materials in a controlled manner is quieter than dropping them on hard surfaces.

5.3 USING ENGINEERING CONTROLS:

A good understanding of the operation of the plant or process is necessary when considering ways of minimising noise at its source.

Examples of engineering control measures include:

- Eliminating impacts between hard objects or surfaces.

- Minimising the drop height of objects or the angle that they fall onto hard surfaces.
- Using absorbent lining on surfaces to cushion the fall or impact of objects.
- Fitting exhaust mufflers on internal combustion engines.
- Fitting silencers to compressed air exhausts and blowing nozzles.
- Isolating a vibrating noise source to separate it from the surface on which it is mounted using rubber mounts and flexible connections.
- Ensuring gears mesh together better.
- Fixing damping materials (such as rubber) or stiffening to panels to reduce vibration.
- Fitting sound-absorbing materials to hard reflective surfaces.
- Turning down volume controls.
- Changing fan speeds or the speeds of particular components.
- Changing the material the equipment or its parts are made of (change metal components to plastic components).

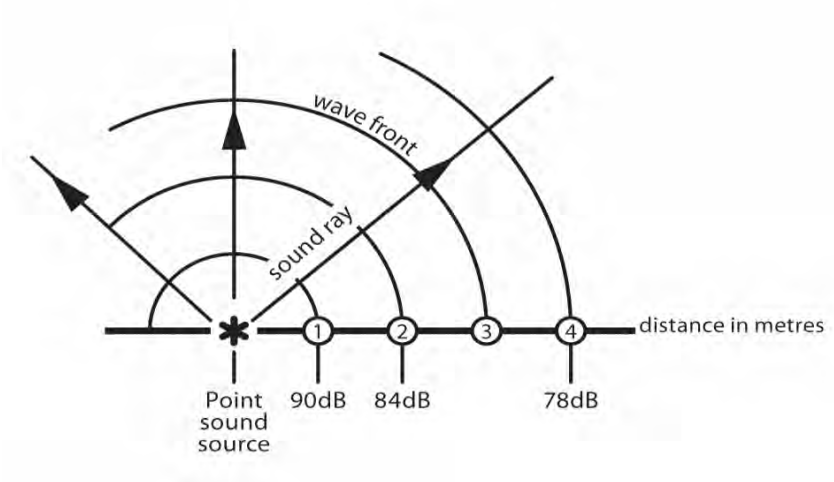
Further information on using engineering controls is at Appendix E.

5.4 ISOLATING THE SOURCE OF NOISE:

Examples of isolating the source of noise from workers include:

- Building enclosures or sound proof covers around noise sources.
- Using barriers or screens to block the direct path of sound.
- Locating noise sources further away from workers (see Figure 1).
- Using remote controls to operate noisy plant from a distance.

Figure 1 Sound spreading in an open space away from reflecting surfaces and measured at a certain distance from the source is reduced by about 6 dB for each doubling of that distance. Sound is reduced less when spreading inside an enclosed space.



If a small sound source produces a sound level of 90 dB(A) at a distance of 1 metre, the sound level at 2 metres distance is 84 dB(A), and at 4 metres is 78 dB(A), etc.

Maintenance:

Regular maintenance of plant and equipment is essential as it will deteriorate with age and can become noisier. Check for changes in noise levels – badly worn bearings and gears, poor lubrication, blunt blades, loose parts, unbalanced rotating parts and steam or air leaks all create noise that can be reduced with good maintenance. Engineering controls

such as vibration mountings, impact absorbers, gaskets, seals, silencers, barriers and other equipment should be regularly inspected and maintained.

5.5 USING ADMINISTRATIVE CONTROLS:

Administrative noise control measures reduce the amount of noise to which a person is exposed by reducing the time they are exposed to it. Examples include:

- Organising schedules so that noisy work is done when only a few workers are present.
- Notifying workers and others in advance of noisy work so they can limit their exposure to it.
- Keeping workers out of noisy areas if their work does not require them to be there.
- Sign-posting noisy areas and restricting access.
- Providing quiet areas for rest breaks for workers exposed to noisy work.
- Limiting the time workers spend in noisy areas by moving them to quiet work before their daily noise exposure levels exceed the exposure standard.

If you rely on administrative controls, you should conduct regular checks to ensure that they are being complied with.

5.6 USING PERSONAL HEARING PROTECTORS:

Regulation 44: If personal protective equipment (PPE) is to be used at the workplace, the person conducting the business or undertaking must ensure that the equipment is:

- Selected to minimise risk to health and safety.
- Suitable for the nature of the work and any hazard associated with the work.
- A suitable size and fit and reasonably comfortable for the person wearing it.
- Maintained, repaired or replaced so it continues to minimise the risk.
- Used or worn by the worker, so far as is reasonably practicable.

Regulation 46: A worker must, so far as reasonably able, wear the PPE in accordance with any information, training or reasonable instruction.

Personal hearing protectors, such as ear-muffs or ear-plugs, should be used in the following circumstances:

- When the risks arising from exposure to noise cannot be eliminated or minimised by other more effective control measures.
- As an interim measure until other control measures are implemented.
- Where extra protection is needed above what has been achieved using other noise control measures.

If the use of personal hearing protectors is necessary, it is important that the hearing protectors are worn throughout the period of exposure to noise. Removing personal hearing protectors for even short periods significantly reduces the effective attenuation (noise reduction) and might provide inadequate protection. For example, a worker wearing a hearing protector for a full 8-hour day will receive the 30 dB maximum protection level. However, one hour without wearing the hearing protector causes the maximum protection level to fall to 9 dB.

Areas where people may be exposed to hazardous noise should be sign-posted as hearing protector areas and the boundaries of these areas should be clearly defined. Workers and other persons, including managers and visitors, should not enter these areas without wearing appropriate personal hearing protectors, regardless of how short the time they stay in the hearing protector area.

Where sign-posting is not practicable, you should make other arrangements to ensure that workers and others know when personal hearing protectors are required. For example:

- Attach prominent warning notices to tools and equipment indicating that personal hearing protectors should be worn when operating them.
- Provide written and verbal instructions on how to recognise circumstances in which personal hearing protectors are needed.
- Ensure effective supervision of identified hazardous tasks.

Personal hearing protectors should be selected and maintained in accordance with AS/NZS 1269.3 Occupational noise management – hearing protector program. Involve your workers in the selection process and offer a reasonable choice from a range of types.

Suppliers of hearing protectors should provide the full information on the attenuation likely to be provided including the SLC80 ratings, class and octave band attenuation values. The attenuation values should be derived from attenuation measurements made in accordance with AS/NZS 1270 Acoustics – hearing protectors.

Selection:

When selecting personal hearing protectors you should consider:

- The degree of attenuation required in the worker's environment (see Table 4). Do not provide protectors that overprotect by cutting out too much sound – this can cause difficulties hearing verbal instructions and other sounds needed to work safely.
- The suitability for the type of working environment and the work tasks. For example, ear-plugs are difficult to use hygienically for work that requires them to be inserted with dirty hands and in these circumstances, ear-muffs are more appropriate, but ear-muffs can be uncomfortable to wear in hot environments and can make it difficult for the wearer to enter a confined space or to wear a helmet.
- The comfort, weight and clamping force of the personal hearing protector.

Table 4 Recommended class of hearing protector:

Measured exposure LAeq,8h dB(A)	Class
Less than 90	1
90 to less than 95	2
95 to less than 100	3
100 to less than 105	4
105 to less than 110	5

Individual fit of personal hearing protectors is critical for optimum protection. Several devices are available to assist with this. Wearing work equipment—such as hard hats, dust masks and eye protection—may affect the performance of the protector. The fit of hearing protectors should be checked while the user is wearing regular work equipment. Workers wearing spectacles should be fitted with hearing protectors while wearing the spectacles.

Maintenance:

Personal hearing protectors must be regularly inspected and maintained to ensure they remain in good, clean condition. The inspections should check that:

- Ear-muff seals are undamaged
- The tension of headbands is not reduced

- There are no unofficial modifications
- Compressible ear-plugs are soft, pliable and clean.

If disposable ear-plugs are used, they should only be worn once.

You must provide your workers with training, information and instruction in the proper use, fit, care and maintenance of personal hearing protectors. You should also:

- Include the need to wear hearing protectors in your safety procedures.
- Place someone in charge of issuing and making sure replacements are readily available.
- Carry out spot checks to ensure that workers are wearing their hearing protectors when required and are using them correctly.
- Ensure all managers and supervisors set a good example and wear personal hearing protectors at all times when in hearing protector areas.

5.7 AUDIOMETRIC TESTING:

Regulation 58: A person conducting a business or undertaking must provide audiometric testing for a worker who is carrying out work for the business or undertaking if the worker is required to frequently use personal hearing protectors as a control measure for noise that exceeds the exposure standard.

Audiometric testing must be provided within three months of the worker commencing work. Starting the audiometric testing before people are exposed to hazardous noise (such as new starters or those changing jobs) provides a baseline as a reference for future audiometric test results. Regular follow-up tests must be carried out at least every two years. These should be undertaken well into the work shift so that any temporary hearing loss can be picked up.

More frequent audiometric testing (e.g. every six months) may be needed if exposures are at a high LAeq,8h, which is equal or greater than 100 dB(A).

Before introducing an audiometric testing program, you must consult with your workers and their health and safety representatives. It is important that your workers understand that the aim of the testing is to evaluate the effectiveness of control measures to protect their hearing.

Audiometric testing and assessment of audiograms should be carried out by competent persons in accordance with the procedures in AS/NZS 1269.4:2005 - Occupational noise management - Auditory assessment.

Workers should be given the results of audiometric testing accompanied by a written explanation of the meaning and implications. Only with the consent of the worker should you provide their results to other parties. Unidentifiable individual results and group data should be made available to health and safety representatives of the worker's work group.

The reasons for any changes in hearing levels over time should be thoroughly investigated.

When temporary or permanent threshold shifts are revealed through audiometric assessments or a worker reports a recent diagnosis of tinnitus, you must review your control measures to determine whether more effective control measures can be implemented so that your workers do not have to rely on personal hearing protectors.

If the worker is to continue using personal hearing protectors, you should:

- Verify that the nominal performance of the worker's personal hearing protector is adequate for the level of exposure to noise.
- Examine the protector carefully and ensure it is not damaged.
- Check the protector fits the worker closely with no leakage paths for noise.
- Ask the worker if they have any difficulty using the protector.
- Check the worker uses the protector correctly and consistently whilst performing their work.

If workers are found to have sufficient hearing loss to interfere with the safe performance of their work, all reasonably practicable steps should be taken to modify the work environment. This may include providing:

- Volume control on equipment such as telephones.
- Acoustically treated meeting areas with low noise and low sound reflections.
- Supplementary visual warning signals.
- Alternative work for the worker if other measures do not remedy the situation.

Monitoring hearing with regular audiometric testing is recommended in situations where workers are exposed to:

- Any of the ototoxic substances listed in Appendix A where the airborne exposure (without regard to respiratory protection worn) is greater than 50 per cent of the national exposure standard for the substance, regardless of the noise level
- Ototoxic substances at any level and noise with LAeq,8h greater than 80 dB(A) or LC,peak greater than 135 dB(C)
- Hand-arm vibration at any level and noise with LAeq,8h greater than 80 dB(A) or LC,peak greater than 135 dB(C).

5.8 INFORMATION, TRAINING AND INSTRUCTION:

Section 19: A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that information, training and instruction is provided to workers and others at the workplace to protect them from health and safety risks.

Regulation 39: The information, training and instruction must, so far as is reasonably practicable, be provided in a way that can be easily understood by any person to whom it is provided.

Training should be provided to:

- Those workers who may be exposed to hazardous noise or other agents that may contribute to hearing loss.
- Their managers and supervisors.
- Workplace health and safety committees and health and safety representatives.
- Those responsible for the purchase of plant, noise control equipment, personal hearing protectors and for the design, scheduling, organisation and layout of work.

The contents of the training program should include:

- The health and safety responsibilities of each party at the workplace.
- How hearing can be affected by exposure to noise.
- The detrimental effects hearing loss and tinnitus have on the quality of life, both at work and socially.
- The tasks at the workplace that have the potential to give rise to hearing loss and the likely noise exposure level
- How to use noise control measures.
- How to select, fit, wear, maintain and store personal hearing protectors.
- How to report defects in hearing protectors and noise control equipment or raise any concerns regarding hazardous noise.
- The purpose and nature of audiometric testing.

5.9 IMPLEMENTING AND MAINTAINING CONTROL MEASURES:

A noise management plan may help implement the chosen noise control measures effectively. It should identify what action needs to be taken, who will be responsible for taking the action and by when.

The plan should be based on the results of any noise assessment and should also include:

- Measuring noise levels to confirm that control measures are achieving expected attenuation.
- Specifications for purchasing or hiring plant.
- A description of any training and supervision that may be needed.
- Control measures for temporary work areas and situations.
- Time frames for reviewing noise assessments and control measures.

Regulation 37: You must ensure that the control measures you implement remain effective. This includes checking that the control measures are suitable for the nature and duration of the work, are installed, maintained and used correctly.

6. HOW TO REVIEW CONTROL MEASURES:

Any noise control measures that are implemented must be reviewed, and if necessary revised, to make sure they work as planned and to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

Regulation 38: A person conducting a business or undertaking must review and as necessary revise noise control measures:

- When the control measure does not control the risk so far as is reasonably practicable.
- Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
- If a new hazard or risk is identified.
- If the results of consultation indicate that a review is necessary.
- If a health and safety representative requests a review.

Control measures may be reviewed using the same methods as the initial hazard identification step.

Consult your workers and their health and safety representatives and consider the following:

- Are the control measures working effectively in both their design and operation?
- How accurate is the risk assessment process? Are all noisy activities being identified?
- Have new work methods or new plant made the work quieter?
- Has instruction and training provided to workers been successful?
- Have new requirements or information indicated that current controls are no longer the most effective?
- Is an alteration planned to any structure, plant or process that is likely to result in a worker being exposed to hazardous noise?
- Has an incident occurred as a result of a worker being exposed to hazardous noise?
- Have any audiometric tests revealed changes in hearing threshold levels?

You should decide on the time interval between noise assessments by consulting with your workers. Assessment should be repeated whenever there is:

- Installation or removal of machinery or other noise sources likely to cause a significant change in noise levels.
- A change in workload or equipment operating conditions likely to cause a significant change in noise levels or exposure times.
- A change in building structure likely to affect noise levels.
- A change to working arrangements affecting the length of time workers spend in noisy work areas.

If you design, manufacture or supply products used for work you should check that the product effectively eliminates or minimises exposure to noise by obtaining feedback from users. This can help in determining whether any improvements can be made.

7. ROLE OF DESIGNERS, MANUFACTURERS, SUPPLIERS AND INSTALLERS:

Eliminating noise in the early stages of product planning (at the source) is more effective and usually cheaper than making changes after noise hazards are introduced into the workplace.

NOTE: Clauses 7.1, 7.2 and 7.3 have been removed as they relate to Designers, Manufacturers, Suppliers and Importers.

7.4 INSTALLERS:

Installers must ensure so far as is reasonably practicable that the plant or structure is installed in such a way that it is without risks to the health and safety of persons. For example, installers should ensure that the installation is undertaken according to the designer's specifications. Isolating vibrating sources of noise may involve installing large heavy machines on separate bases or in such a way that they do not directly contact the remainder of the building structure.

Installers should also provide information to potential users about the conditions required for safe use, including maintenance requirements.

7.5 WHAT INFORMATION SHOULD BE PROVIDED TO POTENTIAL USERS?

Designers, manufacturers, suppliers and importers must give purchasers and other potential users the information they need to safely use the plant, including the results of any calculations, analysis or testing carried out.

Information must include the noise emission values of the plant, the operating conditions of the plant when the noise emission is measured and the methods used to measure the noise emission. This information will help purchasers choose plant with low noise levels.

The testing information that should be supplied to the purchaser is listed in Table 5. Where relevant information on test procedures is contained in a test standard or a test report, reference to the standard or the report should be included. Information should be provided on peak noise levels, where relevant, as well as on continuous noise levels.

Where there is a selection of noise measurement results available, the preferred measurement is the sound pressure level at the operator's position.

Instructions for safe use should be communicated in a way that can be easily understood by users.

Table 5 Minimum noise testing information:

Supplier's details	For example, name, local address, telephone and/or facsimile number , email
Manufacturer's details	For example, name, address, telephone and/or facsimile number ,email
Details of the plant tested	Including any noise controls, for example, make, model, serial number, relevant capacity/rating
Title or number of specific test standard or code followed	Including details of any departures from the standard. For example, if a machine needed to be mounted differently to the method given in the standard, the alternative mounting should be described
Details of operating conditions	If not specified in the standard, or if no specific test standard is available for the type of plant being tested. For example, test machine load, speed, type of material processed, details of installation and mounting of test machine, details of test environment, description of measurement instrumentation and procedure. Reference to a test report containing this information will suffice
Measurement position(s)	For example, operator's ear or 1 metre from machines
Index measured	For example, sound pressure level or sound power level
Frequency weighting	For example, A, C or linear
Time weighting	For example, slow, fast or peak, or **Leq**
Sound level or levels determined in testing.	
Units of measurement	For example, dB re: 20 micropascals
Details of tester	For example, name, address, telephone and/or facsimile number ,email, accreditation
Date issued	

APPENDIX A – OTHER CAUSES OF HEARING LOSS IN THE WORKPLACE:

Vibration:

Studies have indicated that there is a link between exposure to hand-arm vibration and hearing loss. Workers who use equipment such as chainsaws that subject the worker to both hand-arm vibrations and to noise may be more likely to suffer from hearing loss. Tools that may expose workers to both noise and hand-arm vibration include:

- Pneumatic and electrical rotary tools such as concrete breakers, grinders, sanders and drills.
- Percussive tools such as chippers and riveters.
- Petrol-powered tools such as lawn-mowers, brush-cutters and chainsaws.

Control measures to reduce exposure to hand-arm vibration may involve finding alternative ways to do the work that eliminates the need to use vibrating equipment or to purchase tools that produce less vibration.

Ototoxic substances:

Exposure to some chemicals can result in hearing loss. These chemicals are known as ototoxic substances. Hearing loss is more likely to occur if a worker is exposed to both noise and ototoxic substances than if exposure is just to noise or ototoxic substances alone.

There are three major classes of ototoxic substances: solvents, heavy metals and asphyxiants. Work activities that commonly combine noise and ototoxic substances include:

- Painting.
- Printing.
- Boat building.
- Construction.
- Furniture making.
- Fuelling vehicles and aircraft.
- Manufacturing, particularly of metal, leather and petroleum products.
- Degreasing.
- Fire-fighting.
- Weapons firing.

Some medications have also been identified as ototoxic substances. These include some anti-cancer, anti-inflammatory, anti-thrombotic, anti-malarial, anti-rheumatic and antibiotic drugs. Quinine and salicylic acids (such as aspirin) are also considered to be ototoxic substances.

Table A1 below lists those ototoxic substances most commonly used in workplaces. Some of these can be absorbed through the skin and are considered particularly hazardous.

Exposure standards for chemicals and noise have not yet been altered to take account of increased risk to hearing. Until revised standards are established, it is recommended that the daily noise exposure of workers exposed to any of the substances listed in Table A1 be reduced to 80 dB(A) or below. They should also undergo audiometric testing and be given information on ototoxic substances.

Control measures such as substitution, isolation and local ventilation should be implemented to eliminate or reduce chemical exposures. Personal protective equipment should be used to prevent skin and respiratory absorption when other controls are insufficient.

Table A1 Some common ototoxic substances [3]

Type	Name	Skin Absorption
Solvents	Butanol	√
	Carbon disulphide	√
	Ethanol	
	Ethyl benzene	
	n-heptane	
	n-hexane	
	Perchloroethylene	
	Solvent mixtures and fuels Stoddard solvent (white spirits)	√
	Styrene	
	Toluene	√
	Trichloroethylene	√
	Xylenes	
Metals	Arsenic	
	Lead	
	Manganese	
	Mercury	√
	Organic tin	√
Others	Acrylonitrile	√

[3] *Morata T.C. (2007) Promoting hearing health and the combined risk of noise-induced hearing loss and ototoxicity, Audiological Medicine, Vol.5, Issue 1, pp33-40.*

	Carbon monoxide	
	Hydrogen cyanide	√
	Organophosphates	√
	Paraquat	

Acoustic Shock:

Acoustic incidents are sudden, unexpected loud noises occurring during telephone headset use, including crackles, hisses, whistles, shrieks or high-pitched noises. Acoustic shock is not caused by the loudness of a telephone, as all phone noise is electronically limited to a peak noise level of 123 decibels, but by a sudden rise in noise levels.

The noises can come from a wide variety of sources, either within the transmission system or from the customer end. Sources of acoustic incidents include those outlined in Table A2:

Table A2 Sources of acoustic incidents:

Sources within the transmission system	Sources from the customer end
• Faulty or damaged networks, telephones and headset equipment • Broadband and narrowband interference • Mobile phones or fax machines used in call centres	• Feedback oscillation from some cordless phones • Alarm signals • Phone receivers slammed down or dropped • Tones from misdirected facsimiles and modems • Noises made close to the receiver (eg. whistling)

Although acoustic incidents occur in workplaces (mainly call centres), only a very small proportion cause the symptoms known as 'acoustic shock' in workers.

High background noise levels at the workplace can increase the risk of acoustic shock occurring from an acoustic incident. For example, operators may raise the volume in their headsets to improve hearing thereby increasing the impact of any sudden, loud telephone noise. When an acoustic incident occurs, the operator's automatic reaction may be to remove the headset or receiver as quickly as possible and, in some cases, this may help prevent or reduce the effects of acoustic shock.

Other factors, such as a middle ear inflammation and feelings of tension, may increase the likelihood of an acoustic shock resulting from an acoustic incident.

Acoustic shock symptoms:

The effect on individuals can vary greatly for the same increase in sound level. Only a small number of people develop symptoms from an acoustic incident. Why a person experiences symptoms after an acoustic incident is not known with certainty and is still being researched.

Some researchers believe that a combination of stress and sudden loud noise causes excessive contraction of the middle ear muscles, triggering the acoustic shock symptoms.

Audiologists have grouped symptoms into three categories:

- **Primary (immediate) symptoms, which include but are not limited to:**
    - A feeling of fullness in the ear.

- Burning sensations or sharp pain around or in the ear.
- Numbness, tingling or soreness down the side of face, neck or shoulder.
- Nausea or vomiting.
- Dizziness.
- Tinnitus and other head noises such as eardrum fluttering.

- **Secondary symptoms, which include but are not limited to:**
  - Headaches.
  - Fatigue.
  - A feeling of being off-balance.
- **anxiety**
- **Tertiary symptoms, which include but are not limited to:**
  - Hypersensitivity (sensitivity to previously tolerated sounds such as loud voices, television and radio)
  - Hyper vigilance i.e. being overly alert.

People experiencing such symptoms will respond in different ways. As with other workplace injuries and ill health, some may experience further effects, including anger, anxiety, social isolation and other psychological problems.

Few people suffer hearing loss from acoustic shock. To assist in the diagnosis where this may occur, consideration should be given to baseline audiometric testing of all operators' hearing by a specialist when they commence work to establish their baseline hearing ability.

Control measures:

Control measures to eliminate or minimise the risk of acoustic shock include:

- Providing high quality headsets with acoustic shock protection devices.
- Giving prompt attention to damaged equipment and network faults – the equipment or network supplier or an acoustic specialist should be contacted if necessary.
- Ensuring the proper fitting, use and maintenance of headsets.
- Reducing background noise in the room.
- Providing information and training on how to detect warning sounds for example, cordless phones being used too close to the base station at the customer end. Training on warning sounds should also prepare operators to know when to remove headsets as quickly as possible, where necessary.
- With hotdesking work, ensuring workers turn the headset volume down as soon as possible after a changeover
- Considering work organisation issues, such as unreasonable or unrealistic performance pressures or demands, which may cause tension and distress.
- Preventing mobile phones from being used in call centres.

Control of background noise in call centres:

Possible control measures to implement include:

- reviewing the design and layout of the room and workstations:
  - Reducing external and building service noise.
  - Reducing reverberation within the room by using sound absorbing materials.

- Placing acoustic barriers around/between workstations and other call centre areas.

- Encouraging people to not talk loudly or hold discussions near operators.
- Locating fax machines, photocopiers and printers away from operators.
- Controlling radio noise and use of mobile telephones.
- With hotdesking, ensuring changeovers are smoothly managed and quiet.
- Providing sufficient room for workers to move around at changeover times without crowding.

Managing acoustic incidents:

After an acoustic incident, the worker should:

- Remove the headset immediately.
- In some circumstances, move to the 'break out' area.
- Report the incident and any symptoms to the supervisor.
- Discuss with the supervisor their ability to continue work and, where appropriate, relocate to another workstation.

After an acoustic incident, you should:

- Ensure the event is recorded and logged.
- Discuss the incident and ability to continue work with the worker.
- Where symptoms are persistent or severe, refer the worker to a general practitioner and/or an audiologist for assessment and treatment of possible injury.
- Enquire into the cause of the noise, including whether it is from an internal or external source.
- Ensure the headset and other equipment is checked for clarity of sound and possible damage and faults.
- Remove damaged or faulty equipment from service.
- Review the adequacy of the noise control measures and general working environment.

APPENDIX B – NOISE HAZARD IDENTIFICATION CHECKLIST:

Description of work location:_____

Activities at workstation:_____

Assessed by:_____

Date:_____

'Yes' to any of the following indicates the need to carry out a noise assessment if exposure to the noise cannot be immediately controlled.

Hazard identification questions	Yes	No
1. Is a raised voice needed to communicate with someone about one metre away?	☐	☐
2. Do your workers notice a reduction in hearing over the course of the day? (This may only become noticeable after work, for example, needing to turn up the radio on the way home)	☐	☐
3. Are your workers using noisy powered tools or machinery?	☐	☐
4. Are there noises due to impacts (such as hammering, pneumatic impact tools) or explosive sources (such as explosive powered tools, detonators)?	☐	☐
5. Are personal hearing protectors used for some work?	☐	☐
6. Do your workers complain that there is too much noise or that they can't clearly hear instructions or warning signals?	☐	☐
7. Do your workers experience ringing in the ears or a noise sounding different in each ear?	☐	☐
8. Do any long-term workers appear to be hard of hearing?	☐	☐
9. Have there been any workers' compensation claims for noise-induced hearing loss?	☐	☐
10. Does any equipment have manufacturer's information (including labels) indicating noise levels equal or greater than any of the following: (a) 80 dB(A) LAeq,T (T= time period over which noise is measured)? (b) 130 dB(C) peak noise level? (c) 88 dB(A) sound power level?	 ☐ ☐ ☐	 ☐ ☐ ☐
11. Do the results of audiometry tests indicate that past or present workers have hearing loss?	☐	☐
13. Are any workers exposed to noise and ototoxins in the workplace?	☐	☐
14. Are any workers exposed to noise and hand-arm vibration?	☐	☐

APPENDIX C – READY RECKONER:

Tables C1 to C3 provide a simple way of working out a worker's LAeq,8h (eight-hour equivalent continuous sound pressure level) if you know the noise level and duration of each of the noisy tasks carried out by the worker during the work shift.[4]

From Tables C1 or C2 you read off the number of "noise exposure points" that correspond to a particular task's noise level and exposure duration. Table C1 is for noise levels between 75 and 105 dB(A) and Table C2 is for higher noise levels between 95 and 125 dB(A).

For example, a task producing a noise level at the worker's ear of 93 dB(A) that is done for two lots of 30 minutes in a shift (i.e. one hour total) produces 80 noise exposure points. Another task with a noise level of 120 dB(A) for one minute during the shift produces 670 points.

These points can be added (in the normal arithmetic way) to give the total exposure points for the shift. Table C3 is then used to convert the total points to the LAeq,8h.

In the example above, if these were the only noisy tasks carried out by the worker, the points total is 750 and (from Table C3, rounding to the nearest whole decibel) the LAeq,8h for the worker is 94 dB(A).

This calculated LAeq,8h value can be compared with the exposure standard for noise i.e. LAeq,8h = 85 dB(A). Additionally, noise exposure points can be used to prioritise the noise control program by showing which tasks make the greatest contribution to the total noise exposure.

In the example above the worker's LAeq,8h is greater than the standard, so noise control action is needed. Although it only lasts for one minute, the 120 dB(A) task contributes more than eight times as much as the other task to the total exposure and so should be the first one tackled.

In this scheme the exposure standard for noise – LAeq,8h = 85 dB(A) – is 100 points.

Table C1 Exposure points for 75-105 dB(A) / 15minutes – 12 hours:

Sound Level LAeq,T **dB(A)**	**Duration of exposure per shift**							
	15 min	**30 min**	**1 h**	**2 h**	**4 h**	**8 h**	**10 h***	**12 h***
105	320	640	1270	2530	5060	10120	12650	15180
104	250	500	1000	2010	4020	8040	10050	12060
103	200	400	800	1600	3200	6400	8000	9600
102	160	320	640	1270	2540	5070	6340	7600
101	130	250	500	1010	2010	4030	5040	6040
100	100	200	400	800	1600	3200	4000	4800
99	80	160	320	640	1270	2540	3180	3810
98	63	130	250	500	1010	2020	2520	3030
97	50	100	200	400	800	1600	2000	2410

[4] Based on Health and Safety Executive UK guidance material with the points used in the tables derived from procedures in AS/NZS1269.1

Sound Level LAeq,T dB(A)	Duration of exposure per shift							
	15 min	30 min	1 h	2 h	4 h	8 h	10 h*	12 h*
96	40	80	160	320	640	1270	1590	1910
95	32	63	130	250	510	1010	1260	1520
94	25	50	100	200	400	800	1000	1210
93	20	40	80	160	320	640	800	960
92	16	32	63	130	250	510	630	760
91	13	25	50	100	200	400	500	600
90	10	20	40	80	160	320	400	480
89	7.9	16	32	64	130	250	320	380
88	6.3	13	25	50	100	200	250	300
87	5.0	10	20	40	80	160	200	240
86	4.0	8.0	16	32	64	130	160	190
85	3.2	6.3	13	25	50	100	130	150
84	2.5	5.0	10	20	40	80	100	120
83	2.0	4.0	8.0	16	32	64	80	96
82	1.6	3.2	6.3	13	25	51	63	76
81	1.3	2.5	5.0	10	20	40	50	60
80	1.0	2.0	4.0	8.0	16	32	40	48
79	0.8	1.6	3.2	6.4	13	25	32	38
78	0.6	1.3	2.5	5.0	10	20	25	30
77	0.5	1.0	2.0	4.0	8.0	16	20	24
76	0.4	0.8	1.6	3.2	6.4	13	16	19
75	0.3	0.6	1.3	2.5	5.1	10	13	15

Table C2 Exposure points for 95-125 dB(A) / 5 seconds – 10 minutes:

Sound Level LAeq,T dB(A)	Duration of exposure per shift							
	5 sec	10 sec	15 sec	30 sec	1 min	2 min	5 min	10 min
125	180	360	530	1050	2110	4220	10540	21080
124	140	280	420	840	1680	3350	8370	16750
123	110	220	330	670	1330	2660	6650	13300
122	90	180	260	530	1060	2110	5280	10570
121	70	140	210	420	840	1680	4200	8390
120	56	110	170	330	670	1330	3330	6670
119	44	88	130	270	530	1060	2650	5300
118	35	70	110	210	420	840	2100	4210
117	28	56	84	170	330	670	1670	3340
116	22	44	66	130	270	530	1330	2650
115	18	35	53	110	210	420	1050	2110
114	14	28	42	84	170	330	840	1680
113	11	22	33	67	130	270	670	1330
112	8.8	18	26	53	110	210	530	1060
111	7.0	14	21	42	84	170	420	840
10	5.6	11	17	33	67	130	330	670
109	4.4	8.8	13	26	53	110	270	530
108	3.5	7.0	11	21	42	84	210	420
107	2.8	5.6	8.4	17	33	67	170	330
106	2.2	4.4	6.6	13	27	53	130	270
105	1.8	3.5	5.3	11	21	42	110	210
104	1.4	2.8	4.2	8.4	17	33	84	170
103	1.1	2.2	3.3	6.7	13	27	67	130
102	0.9	1.8	2.6	5.3	11	21	53	110

101	0.7	1.4	2.1	4.2	8.4	17	42	84
100	0.6	1.1	1.7	3.3	6.7	13	33	67
99	0.5	0.9	1.3	2.7	5.3	11	27	53
98	0.4	0.7	1.1	2.1	4.2	8.4	21	42
97	0.3	0.6	0.8	1.7	3.3	6.7	17	33
96	0.2	0.5	0.7	1.3	2.7	5.3	13	27
95	0.2	0.4	0.5	1.1	2.1	4.2	11	21

Table C3 Conversion

Total exposure points	**$L_{Aeq,8h}$ dB(A)**
32000	**110**
25420	**109**
20190	**108**
16040	**107**
12740	**106**
10120	**105**
8040	**104**
6400	**103**
5070	**102**
4030	**101**
3200	**100**
2540	**99**
2020	**98**
1600	**97**
1270	**96**
1010	**95**

800	94
640	93
510	92
400	91
320	90
250	89
200	88
160	87
130	86
100	85
80	84
64	83
51	82
40	81
32	80
25	79
20	78
16	77
13	76
10	75

Notes:

1. If there is only one source of noise exposure, a quick glance at the background colour of the table cell corresponding to the sound level and duration of exposure will tell you if the worker is:

   (a) Above the LAeq,8h 85 dB(A) exposure standard - Red

   (b) Well below the LAeq,8h 85 dB(A) standard - Green

   (c) Marginal (between LAeq,8h 80 and 85 dB(A)) – Yellow

2. For durations of exposure not listed in the table, add together the points from two durations that together give the same duration. For example, for five hours at 95 dB(A), add together the points for four hours at 95 dB(A) and one hour at 95 dB(A), i.e. 510 + 130, giving a total of 640 points.

3. The tables can be extended to include both higher and lower sound levels. A change of 10 dB(A) results in a tenfold change in the points. For example, one hour exposure at 108 dB(A) will give 10 times the points for one hour at 98 dB(A), that is, 2500 points.

4. For shift lengths of 10 hours or more (*), the adjustments listed in Table 3 should be added to the LAeq,8h before comparing the result with the exposure standard for noise.

Example: Carpenter working a 10.5-hour shift using tools and machines listed below.

Machine / Process	Measured Sound Level LAeq,T dB(A)	Duration per shift
Circular Saw – cutting hardwood	94	2 h
Planer – planing hardwood	100	3 h
Power Drill – drilling hardwood	87	4 h
Hammering nails into wood	98	10 min
Background	70	1 h 20 min

If you want to just quickly see if the carpenter is exposed above the $L_{Aeq,8h}$ = 85 dB(A) noise standard, look up points for 94 dB(A) and 2 h in Table C1. You will see that the cell is red, so you know without going any further that the carpenter is exposed to noise above the standard.

If you want to actually work out the carpenter's 8h-equivalent continuous noise level, LAeq,8h, then use Tables C1, C2 and C3 as below:

Machine / Process	Sound Level LAeq,T dB(A)	Duration per shift	Points
Circular Saw – cutting hardwood	94	2 h	200
Planer – planing hardwood	100	3 h	2 h 800 1 h 400
Power Drill – drilling hardwood	87	4 h	80
Hammering nails into wood	98	10 min	42
Background	70	1 h 20 min	1 h 0.4 20 m 0.1
		Total 10.5 h	Total 1522.5

From Table C3: LAeq,8h = 97 dB(A), but as the shift is 10.5 hours, an adjustment of +1 dB(A) is needed, hence the adjusted LAeq,8h = 98 dB(A).

APPENDIX D – CONTENTS OF A NOISE ASSESSMENT REPORT:

Checklist: What should be included in a noise assessment report?	If present
When	
Date of Assessment	☐
Who	
Name of Assessor	☐
Information (background/qualifications) of assessor	☐
Equipment used	
Type of equipment used to take measurements	☐
Calibration details for equipment	☐
How the noise measurements were taken	
Where measurements were taken (general area or operator ear position)	☐
Period of time over which the measurements were taken	☐
What was assessed	
The area, plant, process, activity and workers that were assessed	☐
Source of noise	
The sources (plant/process/jobs) of the noise	☐
Whether all the noise sources that may be operating at the time were taken into account	☐
Whether there were any significant noise sources that were not operating during the assessment	☐
Systems of work	
Brief description of the work activity (how it's done; plant/process/activity/operating conditions/duration of process etc)	☐
Hours of workshift (eg 8-hour or 12-hour shift)	☐
Whether assessment is for a normal/typical day or for a worst case scenario	☐
Results	
The results of measurements in terms of levels and durations	☐

Interpretation of the results, (i.e. compared to exposure standards; what do the results mean etc.; ranking of noise sources)	☐
Action Required	
Any obvious noise controls that could be implemented, or the need for more detailed noise control study	☐
Other relevant factors	
Information on and adequacy of any control measures already in place and hearing protectors used during the assessment	☐
Where relevant, information about the environment (types of walls, surfaces, buildings, operational state of machinery, etc.)	☐

APPENDIX E – ENGINEERING CONTROL MEASURES:

The following are 10 simple noise control techniques that have wide application across industry. In many cases they will produce substantial noise reductions quickly and cheaply, with little or no effect on normal operation or use of plant.[5]

1. DAMPING:

Typical applications - Chutes, hoppers, machine guards, panels, conveyors, tanks

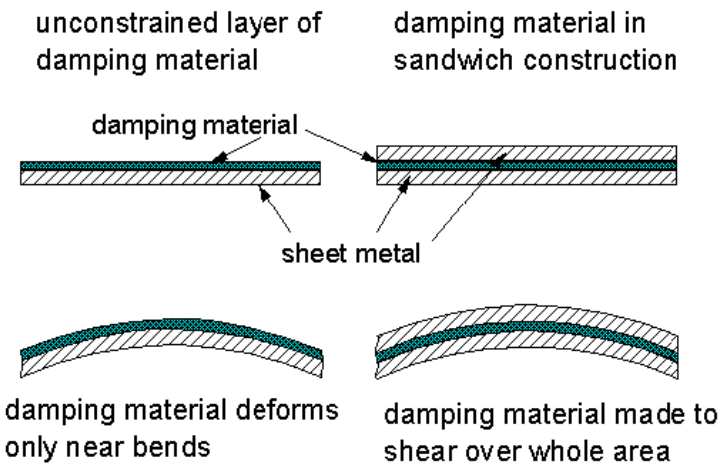
Technique

There are 2 basic techniques:-

- Unconstrained layer damping where a layer of bitumastic (or similar) high damping material is stuck to the surface.
- Constrained layer damping where a laminate is constructed.

Constrained layer damping is more rugged and generally more effective. Either re-manufacture guards, panels or other components from commercially available sound deadened steel or buy self-adhesive steel sheet. The latter can simply be stuck on to existing components (inside or outside) covering about 80% of the flat surface area to give a 5 - 25 dB reduction in the noise radiated (use a thickness that is 40 per cent to 100 per cent of the thickness of the panel to be treated).

Limitations: the efficiency falls off for thicker sheets. Above about 3mm sheet thickness it becomes increasingly difficult to achieve a substantial noise reduction.



2. FAN INSTALLATIONS:

Typical applications - Axial flow or centrifugal fans.

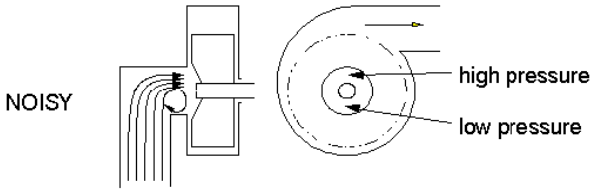
Technique

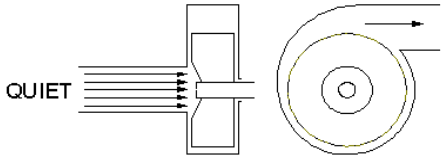
Maximum fan efficiency coincides with minimum noise. Any fan installation feature that tends to reduce fan efficiency is therefore likely to increase noise. Two of the most common examples are bends close to the fan (intake side in particular) and dampers close to the fan intake or exhaust.

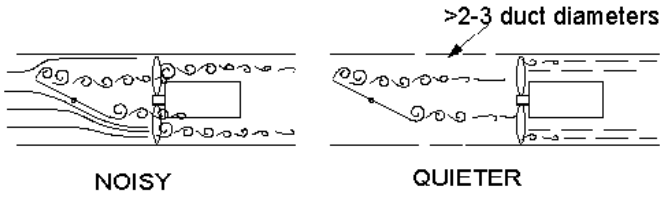
Ideally, for maximum fan efficiency and minimum noise, make sure there is at least 2 - 3 duct diameters of straight duct between any feature that may disturb the flow and the fan itself.

Noise reductions of 3 -12 dB are often possible.

Source Health and Safety Executive UK







3. DUCTWORK

Typical applications - Extraction, ventilation, cooling, openings in walls and enclosures.

Technique

Instead of fitting silencers, it is often possible to achieve a 10 - 20 dB reduction in airborne noise from a duct or opening by lining the last bend in the ductwork with acoustic absorbent (foam or rockwool / fibreglass). Alternatively, construct a simple absorbent lined right-angled bend to fit on the opening. Ideally, either side of the bend should be lined along a length equivalent to twice the duct diameter. Where flow velocities are high (> 3m/s), consider using cloth faced absorbent. Duct vibration can usually be treated by damping (as above).

4. FAN SPEED

Typical applications - Axial or centrifugal flow fans.

Technique

Fan noise is roughly proportional to the 5th power of fan speed. So in many cases it is possible to achieve a large noise reduction from a small drop in fan speed by changing control systems or pulley sizes and re-setting dampers. The following table provides a guide to the trade-off that can be expected.

FAN SPEED REDUCTION	NOISE REDUCTION
10%	2 dB
20%	5 dB
30%	8 dB
40%	11 dB
50%	15 dB

5. PNEUMATIC EXHAUSTS:

Technique

Almost invariably it is possible to reduce pneumatic exhaust noise permanently by 10 - 30 dB by fitting effective silencers. The following are the practical points that can make the difference between success and failure:-

— **Back pressure:** fit a larger coupling and silencer.

— **Clogging:** fit a straight-through silencer that cannot clog (and has no back pressure).

— **Multiple exhausts:** manifold them into a single, larger diameter pipe fitted with the rear silencer from virtually any make of car (from your local tyre and exhaust fitter). Typically 25 dB reduction.

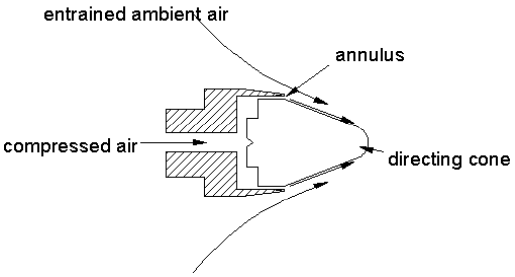
Note: A well designed silencer will not increase system back pressure.

6. PNEUMATIC NOZZLES:

Typical applications - Cooling, drying, blowing

Technique

In most cases, it is possible to replace existing nozzles (usually simple copper pipe outlets) for quiet, high efficiency units. These not only reduce noise levels by up to 10 dB, but also use less compressed air. The types of nozzle to look out for are entraining units (schematic at right) from various manufacturers and in a variety of sizes.



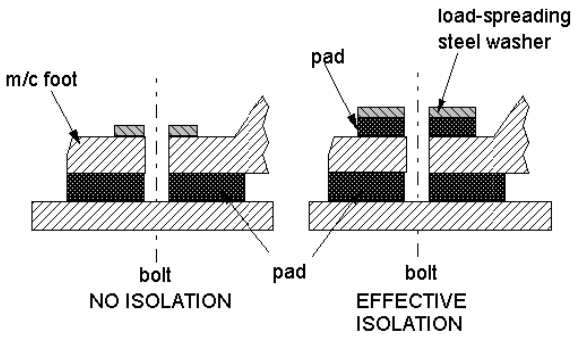
7. VIBRATION ISOLATION PADS:

Typical applications - Machine feet, pumps, mezzanine installations

Technique

Mounting motors, pumps, gearboxes and other items of plant on rubber bonded cork (or similar) pads can be a very effective way of reducing transmission of vibration and therefore noise radiated by the rest of the structure. This is particularly the case where vibrating units are bolted to steel supports or floors. However, a common error with the use of these pads is for the bolt to ”short-circuit” the pad, resulting in no isolation. Additional pads should be fitted under the bolt heads as shown.

There are many types of off-the-shelf anti-vibration mounts available, for instance rubber/neoprene or spring types. The type of isolator that is most appropriate will depend on, among other factors, the mass of the plant and the frequency of vibration to be isolated. Any supplier of anti-vibration mounts will be able to advise you on this.



8. EXISTING MACHINE GUARDS:

Technique

The existing guards on many machines can often be improved to provide a significant noise reduction. The two principles involved, which must be used in combination, are:-

(i) **Minimise gaps**

Reducing by half the “gap” open area in a set of guards can reduce the noise by 3 dB. If you can reduce the openings (flexible seals, additional close fitting panels etc) by 90 per cent, then a 10 dB noise reduction is possible.

(ii) **Acoustic absorbent**

Lining a significant proportion of the inside of the guards with acoustic absorbent (foam, rockwool / fibreglass) will reduce the noise “trapped” by the guards.

Consequently, less noise will escape through any gaps. Failure to line the inside of the guards could result in an increase in noise at the operator’s position if the gaps have been minimised as in (i) above.

In most cases, both sets of modifications can be tested in mock-up form using cardboard (and wide tape) to extend the guarding and temporarily fitting areas of acoustic foam inside. Not only does this process help with the practical aspects (access, visibility etc), but it usually also provides a very good indication of the noise reduction that can be expected. Guard vibration radiated as noise can also be treated via damping (as above).

9. CHAIN & TIMING BELT DRIVES:

Technique

Noisy chain drives can often be replaced directly with quieter timing belts. Within the range of timing belts available, there are also quiet designs that use different tooth profiles to minimise noise. There is also a new design of belt for applications where noise is critical which uses a chevron tooth pattern to provide very quiet running. Noise reductions in the range of 6 - 20 dB are often possible using this approach.

10. ELECTRIC MOTORS:

Technique

Most companies have large numbers of electric motors used on anything from fans to pumps to machine tools. However, it is not very common knowledge that general duty motors are available (at little or no cost premium) that are up to 10 dB(A) or more quieter than typical units as direct replacements. The best approach is to feed these motors into the system over a period of time so that all replacement motors are quiet motors.

LIST OF AMENDMENTS:

Date	Page Number	Amendments
3 September 2015	36	Appendix C - Table C1 Colour coding in row 84 column 10h* (100) and row 83 column 12*h (96) changed from red to yellow.

#Plant

MANAGING RISKS OF PLANT IN THE WORKPLACE

Code of Practice - March 2016

- This Code of Practice has been developed by Safe Work Australia as a model code of practice under the Council of Australian Governments' Inter-Governmental Agreement for Regulatory and Operational Reform in Occupational Health and Safety for adoption by the Commonwealth, state and territory governments.
- A copy of this code is included for download in CCCVaT's website along with other codes referred to in this Workplace Health and Safety Manual which have not be published in this document.
- The reason this Code of Practice was not published in this document was due to its worth to Churches. That is not to imply that it is not relevant and should the Church have plant and machinery, this code of practice should be observed.

SMOKE FREE GUIDELINE

TABLE OF CONTENTS – SMOKE FREE GUIDELINE

1. FORWARD

Smoking in indoor and enclosed public spaces is now banned across Australia however, regulations covering the advertisement of tobacco and bans on smoking vary according to state legislation.

This guideline is based upon information provided by Health-Vic. Link to Health-Vic Smoke Free Workplaces and other select information.

Information is also provided by the Tasmania Government, including an employer Smoke Free - Workplace Place Kit.

Link to Tasmanian Government - Department of Health and Human Services

This guideline has been selected as it seeks to protect the health of other people in most environments.

2. KEY MESSAGES:

- Smoking is not permitted in any enclosed area of a workplace, including shopping centres, restaurants and licensed premises.

- Everyone in a workplace must observe the smoking ban, including employers, employees, volunteers and customers.
- Smoking is only permitted in outdoor areas that are not substantially enclosed.

Studies have found that restrictions on smoking in enclosed areas not only protect workers from exposure to environmental tobacco smoke but result in reduced smoking prevalence and consumption.

Smoking is a leading cause of preventable death and disease in Australia. Smoking greatly increases your risk of suffering from potentially deadly conditions, including a range of cancers, heart disease and respiratory illness. Environmental tobacco smoke (passive smoking) can also harm your health.

Under the Tobacco Act 1987 smoking is prohibited in all enclosed workplaces, whether the people working there are paid employees or volunteers. There are a few exemptions to this ban. Maintaining a smoke-free work environment is essential to ensuring the health and wellbeing of everyone in the workplace.

3. WHAT IS THE NEW LAW?

Amendments to the Tobacco Act 1987 make it an offence to smoke in an enclosed workplace from 1 March 2006.

The 'occupier' (person in control) of the enclosed workplace is also liable if smoking occurs, unless certain circumstances apply.

Note:

- Please refer to page 9 for the full definitions of terms including 'occupier' and 'enclosed' under the Tobacco Act.
- The information in this guide applies to all enclosed workplaces, except those that are exempt from the new law (see page 4 'Are there any workplaces that are exempt from this law?'). This guide does not address the existing requirements that will continue to apply to workplaces that are exempt from the new law.

3.1 Who is affected by the new law?

No one who works in or visits a workplace will be permitted to smoke in enclosed areas of the workplace. This includes:

- Employers
- Employees
- Voluntary workers
- Customers and members of the public

3.2 Do I need to plan for the change?

You should not provide ashtrays, matches, lighters or other things to facilitate smoking in enclosed workplaces from 1 March 2006. If you currently provide these items, you should remove them by that date.

Communicating to staff and visitors verbally, through signs, newsletters, meetings, emails and posters will help people to understand and comply with the new law. The back of this guide has a sample flier, which can be photocopied and distributed to your workers to inform them about the new law.

If your workplace has a smoke-free policy you may need to update this to reflect the new law. If your workplace does not have a smoke-free policy you may wish to develop one so that your employees are clear about their obligations. Quit Victoria can assist you to develop a smoke-free policy in your workplace. Quit's contact details are provided at the back of this guide.

3.3 Why is the law being introduced?

Workplace smoking bans are good for our health

The new law is being introduced to reduce exposure to the dangers of second hand tobacco smoke. Prior to the new workplace smoking ban being introduced, about 30 per cent of Victorian workers were exposed to second hand tobacco smoke in their workplace.

Exposure to second hand tobacco smoke can increase the risk of cardiovascular disease, lung cancer and other lung diseases in adults. A recent study indicates that exposure to high levels of second hand tobacco smoke increases the risk of heart disease by 50 to 60 per cent. Short-term exposure can cause 'irritant' effects on the eyes, nose, throat and airways.

3.4 Workplace smoking bans are effective.

Studies have found that smoking restrictions in the workplace are effective. These restrictions not only protect workers from exposure to second hand tobacco smoke but can also reduce the amount people smoke each day, and increase their chances of successfully quitting.

3.5 The cost of smoking.

The estimated cost of smoking to business in Australia in 1998-99 totalled $1 billion through absenteeism and premature loss of skilled employees.

4. WHERE SMOKING IS/IS NOT PERMITTED

4.1 Yes - The exemptions are:

- Residential premises not used for carrying on a business;
- A part of a residential premises used for carrying on a business while only persons who reside at the premises are in that part (that is, no non-resident employees or members of the public are present);
- A place of business occupied by the sole operator and which is not for the use of the public;
- Outdoor dining and drinking areas;
- A vehicle;
- Personal sleeping or living areas of:
    - A premises providing accommodation to members of the public for a fee (eg hotel); or
    - Residential care facilities which include types of residential care services, supported residential services and aged care services;
- An area in an approved mental health service (within the meaning of the Mental Health Act 1986) declared by the Secretary of the Department of Human Services;
- Prison cells as well as exercise yards of prisons;
- A detention centre established for the purposes of the Migration Act 1958;
- High roller rooms at the Casino;
- Licensed premises (until 1 July 2007).

4.2 Note:

- Some of these workplaces may have individual smoke-free policies.
- Under other amendments to the Tobacco Act, some sheltered outdoor dining and drinking areas will need to be smoke-free from 1 July 2007.
- The existing partial smoking restrictions on the casino, licensed premises and approved venues will continue to apply until 1 July 2007, when these areas will be required to be smoke-free.

4.3 Will smoking be permitted outside?

Yes. As long as the outside area of the workplace is not enclosed (see definition on page 9) smoking will be permitted in these areas.

Some workplaces may have individual policies that prohibit smoking in outdoor areas.

4.4 Can staff smoke in staff rooms, lunchrooms, cafeterias or restrooms?

Smoking is not permitted in any enclosed area of the workplace. Therefore in most cases, smoking will not be permitted in these areas at any time.

4.5 What about workplaces with high roofs?

If a workplace is enclosed then it will be required to be smoke-free. The height of the roof alone will not determine whether an area is enclosed.

4.6 What about garages or factories where roller doors are open?

The smoke-free status of an enclosed workplace will not change even when opening a large area like a roller door or moveable roof or wall. An enclosed workplace is required to be smoke-free, regardless of whether the roof or walls are permanent, temporary, open or closed.

4.7 Are temporary structures included?

Yes. If temporary work structures enclose a workplace, the workplace will be required to be smoke-free.

4.8 Can people smoke outside at entrances to workplaces or near windows and ventilation ducts?

The Tobacco Act 1987 does not prohibit smoking in these areas if they are not enclosed parts of the workplace. However, under Occupational Health and Safety legislation employers are obliged to provide a healthy and safe workplace.

The National Occupational Health and Safety Commission* stated in its Guidance Note on the Elimination of Environmental Tobacco Smoking in the Workplace [NOHSC: 3019 (2003)] that the elimination of environmental tobacco smoke should be achieved by prohibiting smoking in the workplace, including areas where smoke can drift into workplaces.

*The work of the National Occupational Health and Safety Commission will now come under the Australian Safety and Compensation Council.

4.9 Can I smoke in my work vehicle?

The new law does not prohibit employees and employers from smoking in vehicles. However, individual workplaces may have policies that prohibit smoking in vehicles.

4.10 Is the hospitality industry covered by this law?

Restaurants and cafes that are currently required to be smoke-free will continue to be required to be smoke-free.

Licensed premises that are currently required to have partial smoking restrictions will still have those partial restrictions in place until 1 July 2007, after which all enclosed licensed premises will be required to be smoke-free.

5. REQUIREMENTS TO COMPLY:

5.1 Who is the 'occupier'?

The 'occupier' of a workplace is defined under the Tobacco Act 1987 as a person who is over 16 years of age and who is, or appears to be, in control of the area or premises.

The 'occupier' can be the employer and/ or the manager of a workplace or part of the workplace.

5.2 Are workplaces required to display No Smoking signs?

The occupier of a retail shopping centre, bingo area/centre, licensed premises, approved venue, the Casino, dining areas or an enclosed restaurant/café, must display acceptable No Smoking signs. (See 'Definitions' on page 9 for acceptable No Smoking signs).

Occupiers of other workplaces are not required by law to display No Smoking signs. However, it is recommended that No Smoking signs are displayed to ensure employees and visitors are aware of the areas where smoking is not permitted.

5.3 Where can I obtain No Smoking signs?

No Smoking signs can be obtained free of charge by calling the Tobacco Information Line on 1300 136775. Workplaces can also develop their own No Smoking signs.

5.4 How do occupiers comply with the law and avoid liability for other people smoking in the workplace?

Occupiers of enclosed workplaces are liable to be penalised if smoking occurs in the workplace.

To avoid liability, people in control of a workplace should take reasonable measures to ensure that staff, customers and visitors are aware of the new law and that they do not smoke in these premises. This includes:

- Not providing any materials that facilitate smoking such as ashtrays and lighters; and
- Informing anyone who does smoke that they are committing an offence and should stop smoking.

5.5 What are the responsibilities of employees?

Employees have a responsibility not to smoke in enclosed workplaces. Employees are liable to be penalised if they smoke in the workplace.

5.6 What are the penalties?

If a person smokes in an enclosed workplace, the person who smokes may receive a fine or be prosecuted, as may the person in control of the enclosed workplace at the time (the 'occupier'). The occupier of a retail shopping centre, bingo area/centre, licensed premises, approved venue, the casino, dining area or an enclosed restaurant/café who fails to display acceptable No Smoking signs may receive a fine or be prosecuted. The table below shows the applicable penalties.

5.7 Who should employers or employees contact if smoking continues in the workplace after 1 March 2006?

Contact the Department of Human Services via the Tobacco Information Line on 1300 136775.

	Infringement	Maximum Penalty if Prosecuted
Person smoking in an enclosed workplace	1 penalty unit*	5 penalty units
Person in control of the enclosed workplace at the time the smoking occurs (the 'occupier')**	1 penalty unit	5 penalty units
Occupier of a retail shopping centre, bingo area/centre, casino or an enclosed restaurant/café, where acceptable No Smoking signs are not displayed	1 penalty unit	5 penalty units

* The value of a penalty unit in 2005/06 is $104.81 (indexed annually).

** See 'How do occupiers comply with the law and avoid liability…' on page 6 for defences available to the occupier where smoking occurs in the workplace.

6. CIGARETTE LITTER AND THE LAW:

The Environment Protection Act 1970 provides for:

- Offences relating to littering by individuals
- Litter abatement notices to prevent litter entering the public domain
- Orders to clean up litter

The Act covers both public and private property. To protect yourself from a notice, fine or prosecution you may need to consider litter prevention in your workplace.

Local Council laws may also impose obligations on businesses to take steps to prevent or reduce litter (local laws vary).

7. DEFINITIONS UNDER THE TOBACCO ACT 1987:

7.1 What is a 'workplace' under the new law?

A workplace is any premises or area where one or more employees or self-employed persons (or both) work, whether or not they receive any payment for the work.

Licensed premises will not be covered under the law that bans smoking in enclosed workplaces until 1 July 2007, after which they will be required to be smoke-free.

7.2 What does 'enclosed' mean?

Enclosed means an area, room or premises that is or are substantially enclosed by a roof and walls, regardless of whether the roof or walls or any part of them are:

a. Permanent or temporary.

b. Open or closed.

That is, even if the roof or walls are temporary or open, they are considered to be closed for the purposes of determining if the area is substantially enclosed.

7.3 How are 'walls' and 'roof' defined?

A wall includes any structure or device (whether fixed or moveable) that prevents or significantly impedes lateral airflow, including a window or door.

A roof includes any structure or device (whether fixed or moveable) that prevents or significantly impedes upward airflow including a ceiling.

7.4 hat is the definition of 'occupier' of an area or premises?

An occupier is a person who appears to be of or over 16 years of age and who is, or appears to be, in control of the area or premises.

The 'occupier' can be the employer and/ or the manager of a workplace or part of the workplace.

7.5 What is an acceptable No Smoking sign?

An 'acceptable No Smoking sign' means a sign that contains:

a. A No Smoking symbol in the form of a circle and diagonal line printed in red over a depiction of a cigarette and smoke printed in black, or other symbol that clearly indicates that smoking is not permitted, with the symbol being at least 70 mm in height; and

b. The phrase 'No Smoking' or 'Smoking Prohibited', or other wording that clearly indicates that smoking is not permitted, in letters that are at least 20 mm in height.

8. EMPLOYEES THAT SMOKE AND DESIGNATED SMOKING AREAS:

Employers should ensure that employees are aware that they will no longer be permitted to smoke in enclosed workplaces from 1 March 2006. Quit Victoria provides information and assistance to those who wish to quit smoking. Their contact details are provided in the back of this guide. Employers may wish to find alternative arrangements for employees who smoke such as providing unenclosed designated outdoor smoking areas or assistance with smoking cessation. Each workplace is different and employers will need to determine what should be provided.

Examples of designated smoking areas in workplaces:

This outdoor smoking area has one long glass wall and two short glass walls, with a long open area at the front. This area is not considered to be enclosed and smoking will be permitted here.

This outdoor smoking area has two closed walls and one open wall, with a covered roof. This area is not considered to be enclosed and smoking will be permitted here.

Were this area to be further enclosed, smoking would not be permitted here.

9. WORKPLACE CHECKLIST:

The following checklist provides a guide to employers to assist them to implement the new law. Each workplace is different and each employer will need to consider whether they wish to accommodate employees who smoke, any compulsory or optional signage requirements, and other changes which may need to be made.

Activity	Date	Completed
Communicate the new law to management and employees. Provide information and/or assistance to those staff who wish to quit smoking (Contact Quit Victoria).	February 2006	☐
Communicate to staff where they can and cannot smoke.		☐
Consider alternative arrangements to accommodate employees who smoke, such as providing a designated outdoor smoking area (which is not enclosed).		☐
Display No Smoking signs that are clearly visible to all employees, customers and visitors at entrances, in toilet facilities and staff rooms.		☐
Where appropriate, provide external stubbing bins at building entrances and designated smoking areas.		☐
Remove ashtrays and other objects that facilitate smoking from enclosed areas.		☐
New law comes into effect	**1 March 2006**	
Monitor smoking ban to ensure staff are continuing to comply.		

10. WORKPLACES AND TOBACCO LAWS – FAQS:

Who is affected by the law?

Everyone who works or visits a workplace is required to abide by the smoking ban in enclosed workplaces, including:

- Employers
- Employees
- Voluntary workers
- Customers.

'Workplace' means any premises or area where one or more employees or self-employed persons work, whether or not they receive payment for that work. This includes premises such as brothels or areas such as enclosed car parks.

10.1 What does 'enclosed' mean?

'Enclosed' means an area, room or premises that is substantially enclosed by a roof and walls, regardless of whether the roof or walls or any part of them are permanent, temporary, open or closed.

10.2 Are any workplaces exempt from the law?

Yes. Exemptions include:

- Residential premises not used for carrying on a business
- A part of a residential premises used for carrying on a business while only persons who reside at the premises are in that part (that is no non-resident employees or members of the public are present)
- A place of business occupied by the sole operator and that is not for the use of the public
- outdoor drinking areas
- A vehicle
- Personal sleeping or living areas of a premises providing accommodation to members of the public for a fee (such as a hotel), or residential care facilities including types of residential care services, supported residential services and aged care services
- An area in a designated mental health service, within the meaning of the Mental Health Act 2014 declared by the Secretary
- A detention centre established for the purposes of the Migration Act 1958 (Cwlth)
- High-roller rooms at the casino.

10.3 re employees working in the hospitality industry covered under the law?

Restaurants and cafés originally required to be smoke-free are still required to be smoke-free. Enclosed licensed premises, cafés and restaurants are required to be smoke-free.

10.4 Is smoking permitted outside?

Yes. As long as outside areas are not substantially enclosed, smoking is permitted.

10.5 What about a factory or a garage with open roller doors?

An enclosed workplace is required to be smoke-free, regardless of whether the roof or walls are permanent, temporary, open or closed.

10.6 Can staff smoke in staff rooms, lunch rooms, cafeterias or rest rooms?

Smoking is not permitted in any enclosed area of a workplace. Therefore, in most cases smoking will not be permitted in these areas at any time.

10.7 Can staff and visitors smoke in car parks?

if a workplace car park is substantially enclosed by a roof and walls, smoking is not permitted.

10.8 Are employers required to display ‘no smoking’ signs in enclosed workplaces?

The occupier of a retail shopping centre, a bingo area or centre, a casino or an enclosed restaurant or café must display acceptable ‘No smoking’ signs.

Other employers are not required by law to display ‘No smoking’ signs. However, it is recommended that such signs are displayed to ensure that employees and visitors are aware of where smoking bans apply.

‘No smoking’ signs are available to order free of charge through the online order form on the Resources and factsheets page, and electronic versions can also be downloaded from this page.

10.9 Who should i contact if people are smoking in my workplace?

It is expected that all enclosed workplaces not exempt from the law be smoke-free and that, where appropriate, workplaces will adopt a smoke-free policy.

If smoking continues, you can contact the Department of Health & Human Services' Tobacco Information Line on 1300 136 775 to report a breach.

10.10 What are the penalties for not abiding by the law?

Breach of tobacco laws	Infringement notice		Maximum penalties in Magistrates' Court	
	Natural person	Body Corporate	Natural person	Body Corporate
Person smoking in an enclosed workplace	1 PU	-	5 PU	-
Person in charge of the enclosed workplace at the time the smoking occurs	2 PU	-	10 PU	50 PU
Occupier of a retail shopping centre, bingo area/centre, casino or enclosed restaurant/café, where acceptable ‘No smoking’ signs are not displayed	2 PU	5 PU	10 PU	50 PU

Note: PU = penalty unit/s - The value of a penalty unit for 2005/06 is $104.81 (indexed annually).

10.11 What is the value of a penalty unit?

The value of penalty units is indexed annually. The current value of a penalty unit is listed on the Legislation and regulations page.

10.12 Are there any defences?

Yes. The person in charge of the enclosed workplace at the time the smoking occurs is not guilty of an offence if they can prove that they did not provide an ashtray, matches, lighter or any other thing designed to facilitate smoking and that:

- They were not aware, and could not reasonably be expected to have been aware, that smoking was occurring; or
- They asked the person to stop smoking and informed the person they were committing an offence.

SMOKE FREE GUIDELINE-2

Disclaimer: This guide is based upon a guide furnished the Victorian Government Department of Human Services and is intended only as a general guide and introduction to the relevant provisions of the Tobacco Act 1987. The Department of Human Services does not accept any liability for any expense, loss or damage suffered as a result of reliance upon the information contained in this guide. Nothing in this guide should replace the seeking of appropriate legal advice where this is considered appropriate.

TABLE OF CONTENTS – SMOKE FREE POLICY

1. WHAT IS THE NEW LAW?

Amendments to the Tobacco Act 1987 make it an offence to smoke in an enclosed workplace from 1 March 2006.

The 'occupier' (person in control) of the enclosed workplace is also liable if smoking occurs, unless certain circumstances apply.

Note:

- Please refer to page 9 for the full definitions of terms including 'occupier' and 'enclosed' under the Tobacco Act.
- The information in this guide applies to all enclosed workplaces, except those that are exempt from the new law (see page 4 'Are there any workplaces that are exempt from this law?'). This guide does not address the existing requirements that will continue to apply to workplaces that are exempt from the new law.

Who is affected by the new law?

No one who works in or visits a workplace will be permitted to smoke in enclosed areas of the workplace. This includes:

- Employers.
- Employees.
- Voluntary workers.
- Customers and members of the public.

Do I need to plan for the change?

You should not provide ashtrays, matches, lighters or other things to facilitate smoking in enclosed workplaces from 1 March 2006. If you currently provide these items, you should remove them by that date.

Communicating to staff and visitors verbally, through signs, newsletters, meetings, emails and posters will help people to understand and comply with the new law. The back of this guide has a sample flier, which can be photocopied and distributed to your workers to inform them about the new law.

If your workplace has a smoke-free policy you may need to update this to reflect the new law. If your workplace does not have a smoke-free policy you may wish to develop one so that your employees are clear about their obligations. Quit Victoria can assist you to develop a smoke-free policy in your workplace. Quit's contact details are provided at the back of this guide.

Why is the law being introduced?

Workplace smoking bans are good for our health:

The new law is being introduced to reduce exposure to the dangers of second hand tobacco smoke. Prior to the new workplace smoking ban being introduced, about 30 per cent of Victorian workers were exposed to second hand tobacco smoke in their workplace.

Exposure to second hand tobacco smoke can increase the risk of cardiovascular disease, lung cancer and other lung diseases in adults. A recent study indicates that exposure to high levels of second hand tobacco smoke increases the risk of heart disease by 50 to 60 per cent. Short-term exposure can cause 'irritant' effects on the eyes, nose, throat and airways.

Workplace smoking bans are effective:

Studies have found that smoking restrictions in the workplace are effective. These restrictions not only protect workers from exposure to second hand tobacco smoke but can also reduce the amount people smoke each day, and increase their chances of successfully quitting.

The cost of smoking:

The estimated cost of smoking to business in Australia in 1998-99 totalled $1 billion through absenteeism and premature loss of skilled employees.

Community support:

In 2004, 82 per cent of Victorians supported workplace smoking bans.

2. WHERE SMOKING IS/IS NOT PERMITTED?

Are there any workplaces that are exempt from this law? Yes.

The exemptions are:

- Residential premises not used for carrying on a business;
- A part of a residential premises used for carrying on a business while only persons who reside at the premises are in that part (that is, no non-resident employees or members of the public are present);
- A place of business occupied by the sole operator and which is not for the use of the public;
- outdoor dining and drinking areas;
- A vehicle;
- Personal sleeping or living areas of:
    - A premises providing accommodation to members of the public for a fee (eg hotel); or
    - Residential care facilities which include types of residential care services, supported residential services and

aged care services;

- An area in an approved mental health service (within the meaning of the Mental Health Act 1986) declared by the Secretary of the Department of Human Services;
- Prison cells as well as exercise yards of prisons;
- A detention centre established for the purposes of the Migration Act 1958;
- High roller rooms at the Casino;
- Licensed premises (until 1 July 2007).

Note:

- Some of these workplaces may have individual smoke-free policies.
- Under other amendments to the Tobacco Act, some sheltered outdoor dining and drinking areas will need to be smoke-free from 1 July 2007.
- The existing partial smoking restrictions on the casino, licensed premises and approved venues will continue to apply until 1 July 2007, when these areas will be required to be smoke-free.

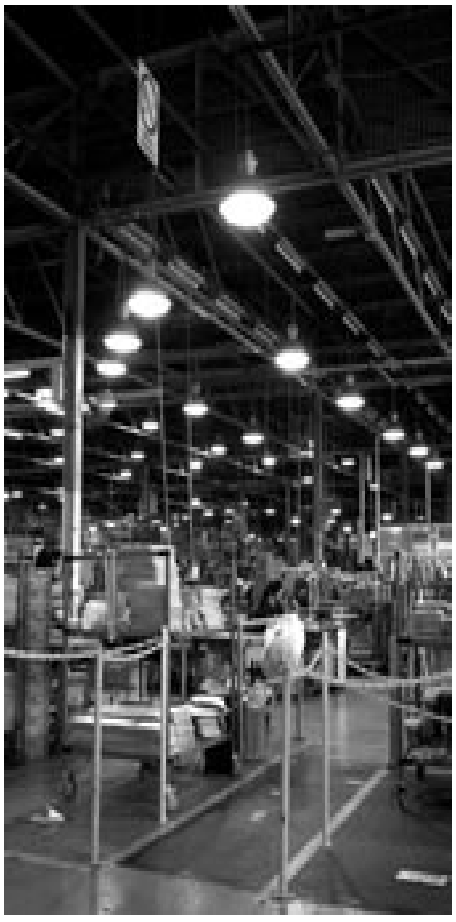
Will smoking be permitted outside?

Yes. As long as the outside area of the workplace is not enclosed (refer definition) smoking will be permitted in these areas.

Some workplaces may have individual policies that prohibit smoking in outdoor areas.

Can staff smoke in staff rooms, lunchrooms, cafeterias or restrooms?

Smoking is not permitted in any enclosed area of the workplace. Therefore in most cases, smoking will not be permitted in these areas at any time.



What about workplaces with high roofs?

If a workplace is enclosed then it will be required to be smoke-free. The height of the roof alone will not determine whether an area is enclosed.

What about garages or factories where roller doors are open?

The smoke-free status of an enclosed workplace will not change even when opening a large area like a roller door or moveable roof or wall. An enclosed workplace is required to be smoke-free, regardless of whether the roof or walls are permanent, temporary, open or closed.

Are temporary structures included?

Yes. If temporary work structures enclose a workplace, the workplace will be required to be smoke-free.

Can people smoke outside at entrances to workplaces or near windows and ventilation ducts?

The Tobacco Act 1987 does not prohibit smoking in these areas if they are not enclosed parts of the workplace. However, under Occupational Health and Safety legislation employers are obliged to provide a healthy and safe workplace.

The National Occupational Health and Safety Commission* stated in its Guidance Note on the Elimination of Environmental Tobacco Smoking in the Workplace [NOHSC: 3019 (2003)] that the elimination of environmental tobacco smoke should be achieved by prohibiting smoking in the workplace, including areas where smoke can drift into workplaces.

**The work of the National Occupational Health and Safety Commission will now come under the Australian Safety and Compensation Council.*

Can I smoke in my work vehicle?

The new law does not prohibit employees and employers from smoking in vehicles. However, individual workplaces may have policies that prohibit smoking in vehicles.

Is the hospitality industry covered by this law?

Restaurants and cafes that are currently required to be smoke-free will continue to be required to be smoke-free.

Licensed premises that are currently required to have partial smoking restrictions will still have those partial restrictions in place until 1 July 2007, after which all enclosed licensed premises will be required to be smoke-free.

3. REQUIREMENTS TO COMPLY:

Who is the 'occupier'?

The 'occupier' of a workplace is defined under the Tobacco Act 1987 as a person who is over 16 years of age and who is, or appears to be, in control of the area or premises.

The 'occupier' can be the employer and/ or the manager of a workplace or part of the workplace.

Are workplaces required to display No Smoking signs?

The occupier of a retail shopping centre, bingo area/centre, licensed premises, approved venue, the Casino, dining areas or an enclosed restaurant/café, must display acceptable No Smoking signs. (See 'Definitions' on page 9 for acceptable No Smoking signs).

Occupiers of other workplaces are not required by law to display No Smoking signs. However, it is recommended that No Smoking signs are displayed to ensure employees and visitors are aware of the areas where smoking is not permitted.

Where can I obtain No Smoking signs?

No Smoking signs can be obtained free of charge by calling the Tobacco Information Line on 1300 136775. Workplaces can also develop their own No Smoking signs.

How do occupiers comply with the law and avoid liability for other people smoking in the workplace?

Occupiers of enclosed workplaces are liable to be penalised if smoking occurs in the workplace.

To avoid liability, people in control of a workplace should take reasonable measures to ensure that staff, customers and visitors are aware of the new law and that they do not smoke in these premises. This includes:

- not providing any materials that facilitate smoking such as ashtrays and lighters; and
- informing anyone who does smoke that they are committing an offence and should stop smoking.

What are the responsibilities of employees?

Employees have a responsibility not to smoke in enclosed workplaces. Employees are liable to be penalised if they smoke in the workplace.

What are the penalties?

If a person smokes in an enclosed workplace, the person who smokes may receive a fine or be prosecuted, as may the person in control of the enclosed workplace at the time (the 'occupier'). The occupier of a retail shopping centre, bingo area/centre, licensed premises, approved venue, the casino, dining area or an enclosed restaurant/café who fails to display acceptable No Smoking signs may receive a fine or be prosecuted. The table below shows the applicable penalties.

Who should employers or employees contact if smoking continues in the workplace after 1 March 2006?

Contact the Department of Human Services via the Tobacco Information Line on 1300 136775.

Activity	Infringement	Maximum Penalty if Prosecuted
Person smoking in an enclosed workplace	1 penalty unit*	5 penalty units
Person in control of the enclosed workplace at the time the smoking occurs (the 'occupier')**	1 penalty unit	5 penalty units
Occupier of a retail shopping centre, bingo area/centre, casino or an enclosed restaurant/café, where acceptable No Smoking signs are not displayed	1 penalty unit	5 penalty units

** The value of a penalty unit in 2005/06 is $104.81 (indexed annually).*

*** See 'How do occupiers comply with the law and avoid liability…' on page 6 for defences available to the occupier where smoking occurs in the workplace.*

4. CIGARETTE LITTER AND THE LAW:

The Environment Protection Act 1970 provides for:

- Offences relating to littering by individuals
- Litter abatement notices to prevent litter entering the public domain
- Orders to clean up litter

The Act covers both public and private property. To protect yourself from a notice, fine or prosecution you may need to consider litter prevention in your workplace.

Local Council laws may also impose obligations on businesses to take steps to prevent or reduce litter (local laws vary).

5. DEFINITIONS UNDER THE TOBACCO ACT 1987

What is a 'workplace' under the new law?

A workplace is any premises or area where one or more employees or self employed persons (or both) work, whether or not they receive any payment for the work.

Licensed premises will not be covered under the law that bans smoking in enclosed workplaces until 1 July 2007, after which they will be required to be smoke-free.

What does 'enclosed' mean?

Enclosed means an area, room or premises that is or are substantially enclosed by a roof and walls, regardless of whether the roof or walls or any part of them are:

a. permanent or temporary;

b. open or closed.

That is, even if the roof or walls are temporary or open, they are considered to be closed for the purposes of determining

if the area is substantially enclosed.

How are 'walls' and 'roof' defined?

A wall includes any structure or device (whether fixed or moveable) that prevents or significantly impedes lateral airflow, including a window or door.

A roof includes any structure or device (whether fixed or moveable) that prevents or significantly impedes upward airflow including a ceiling.

What is the definition of 'occupier' of an area or premises?

An occupier is a person who appears to be of or over 16 years of age and who is, or appears to be, in control of the area or premises.

The 'occupier' can be the employer and/ or the manager of a workplace or part of the workplace.

What is an acceptable No Smoking sign?

An 'acceptable No Smoking sign' means a sign that contains:

a. a No Smoking symbol in the form of a circle and diagonal line printed in red over a depiction of a cigarette and smoke printed in black, or other symbol that clearly indicates that smoking is not permitted, with the symbol being at least 70 mm in height; and

b. the phrase 'No Smoking' or 'Smoking Prohibited', or other wording that clearly indicates that smoking is not permitted, in letters that are at least 20 mm in height.

6. EMPLOYEES THAT SMOKE AND DESIGNATED SMOKING AREAS:

Employers should ensure that employees are aware that they will no longer be permitted to smoke in enclosed workplaces from 1 March 2006.

Quit Victoria provides information and assistance to those who wish to quit smoking. Their contact details are provided in the back of this guide.

Employers may wish to find alternative arrangements for employees who smoke such as providing unenclosed designated outdoor smoking areas or assistance with smoking cessation. Each workplace is different and employers will need to determine what should be provided.

Examples of designated smoking areas in workplaces:

This outdoor smoking area has one long glass wall and two short glass walls, with a long open area at the front. This area is not considered to be enclosed and smoking will be permitted here.

This outdoor smoking area has two closed walls and one open wall, with a covered roof. This area is not considered to be enclosed and smoking will be permitted here.

Were this area to be further enclosed, smoking would not be permitted here.

7. WORKPLACE CHECKLIST:

The following checklist provides a guide to employers to assist them to implement the new law. Each workplace is different and each employer will need to consider whether they wish to accommodate employees who smoke, any compulsory or optional signage requirements, and other changes which may need to be made.

Activity	Date	Completed
Communicate the new law to management and employees. Provide information and/or assistance to those staff who wish to quit smoking (Contact Quit Victoria).	February 2006	☐
Communicate to staff where they can and cannot smoke.		☐
Consider alternative arrangements to accommodate employees who smoke, such as providing a designated outdoor smoking area (which is not enclosed).		☐
Display No Smoking signs that are clearly visible to all employees, customers and visitors at entrances, in toilet facilities and staff rooms.		☐
Where appropriate, provide external stubbing bins at building entrances and designated smoking areas.		☐
Remove ashtrays and other objects that facilitate smoking from enclosed areas.		☐
New law comes into effect	**1 March 2006**	
Monitor smoking ban to ensure staff are continuing to comply.		

The next page contains a flier which can be photocopied and distributed to your employees.

SMOKE-FREE WORKPLACES

From March 2006

Background

A new law which bans smoking in enclosed workplaces is being introduced to protect workers from exposure to second hand tobacco smoke in the workplace. Second hand tobacco smoke can increase the risk of cardiovascular disease, lung cancer and other lung diseases in adults. A recent study indicates that exposure to high levels of second hand tobacco smoke increases the risk of heart disease by 50 to 60 per cent. Short-term exposure can cause 'irritant' effects on the eyes, nose, throat and airways.

What is the new law?

Under the Tobacco Act 1987 from 1 March 2006 smoking will be prohibited in all enclosed workplaces whether or not the people working at the workplace are paid or are volunteers (some exemptions apply).

What is the penalty?

If a person smokes in an enclosed workplace, the person who smokes may receive a fine or be prosecuted, as may the person in charge of the enclosed workplace at the time. The table below shows the applicable penalties.

What does 'enclosed' mean?

An area, room or premises that is or are substantially enclosed by a roof and walls, regardless of whether the roof or walls or any part of them are:

a. permanent or temporary;

b. open or closed.

That is, even if the roof or walls are temporary or open, they are considered to be closed for the purpose of determining if the area is substantially enclosed.

Will large workplaces with high roofs be required to be smoke-free?

If the workplace is enclosed then it will be required to be smoke-free. The height of the roof alone will not determine whether an area is enclosed.

Will factories or garages with open roller doors be required to be smoke-free?

The smoke-free status of an enclosed workplace will not change even when opening a large area like a roller door or moveable roof or wall. They are considered to be closed when determining if the area is enclosed.

Are temporary structures included?

Yes. If temporary work structures enclose a workplace, they will be required to be smoke-free.

Are there any defences?

Yes. The person in control of the enclosed workplace at the time the smoking occurs will not be guilty of an offence if he/she can prove that they did not provide an ashtray, matches, lighter or any other thing designed to facilitate smoking and that:

a. they were not aware, and could not reasonably be expected to have been aware, that smoking was occurring; or

b. they requested the person to stop smoking and informed the person they were committing an offence.

For further information on the new law:

Call the Tobacco Information Line:
1300 136 775

Visit: www.health.vic.gov.au/tobaccoreforms/

For help to quit smoking:

Call Quitline 13 7848

Visit: www.quit.org.au

	Fine	Maximum Penalty if Prosecuted
Person smoking in an enclosed workplace	1 penalty unit*	5 penalty units
Person in control of the enclosed workplace at the time the smoking occurs (the 'occupier')	1 penalty unit	5 penalty units
Occupier of a retail shopping centre, bingo area/centre, casino or an enclosed restaurant/café, where acceptable No Smoking signs are not displayed	1 penalty unit	5 penalty units

*the value of a penalty unit for 2005/06 is $104.81 (indexed annually).

9. FURTHER INFORMATION:

INFORMATION ON THE NEW LAW

Call the Tobacco Information Line on 1300 136775. Visit www.health.vic.gov.au/tobaccoreforms

INFORMATION ON QUITTING SMOKING, QUIT COURSES AND DEVELOPING A SMOKE-FREE POLICY:

Information on quitting smoking:

Call the Quitline 13 7848 for assistance and support or Visit www.quit.org.au

Assistance in developing a smoke-free policy and information about Quit courses and seminars for staff:

Call 9663 7777 or Visit www.smokefree.org.au

INFORMATION ON CIGARETTE BUTT LITTER:

Butt litter and the law:

Environmental Protection Authority, Victoria Visit www.epa.vic.gov.au/litter

Litter management and prevention: Victorian Litter Action Alliance Visit www.litter.vic.gov.au

or contact your local council.

10. ACKNOWLEDGEMENTS:

Australian Institute of Health and Welfare, 2005. The 2004 National Drug Strategy Household Survey, State and Territory Supplement.

Centre for Behavioural Research in Cancer, 2005. Smoking prevalence and consumption in Victoria: key findings from the 1998-2003 population surveys.

Department of Health and Ageing, 2004. The National Tobacco Strategy 2004-2009. Department of Human Services, Victoria, 1999. Victorian Burden of Disease Study: Mortality. Environmental Protection Authority, Victoria

National Occupational Health and Safety Commission, 2003. Guidance Note on the Elimination of Environmental Tobacco Smoking in the Workplace [NOHSC: 3019 (2003)].

Victorian Litter Action Alliance

SMOKE FREE POLICY

TABLE OF CONTENTS – SMOKE FREE POLICY

1. SMOKE FREE POLICY

1.1 Mission statement

- Will be smoke-free at all times.
- Will inform workers about the health risks associated with smoking.
- Will support workers who wish to stop smoking.
- Will designate an outdoor area where people can smoke.
- Will protect workers and visitors from tobacco smoke released into the environment.

1.2 Objectives and strategies

Will eliminate smoking and passive smoking in the workplace by:

- Ensuring all workers and visitors are aware of the smoke-free policy.
- Place smoke-free signs around the workplace.
- Ensuring the smoke-free policy is included in other relevant policies e.g. recruitment policies.
- Ensuring that all church-related events (both on and off site) are non-smoking events.
- Providing support to workers wanting to quit smoking.

1.3 Increase knowledge and awareness among workers and volunteers of the health risks of smoking by:

- Providing information (brochures) to employee or volunteers - Link to resources
- Provide information on quit smoking tools such as Fresh Start smoking cessation courses and Quitline when appropriate.

1.4 Scope and responsibilities:

This policy applies to all workers, volunteers, contractors and sub-contractors, attendee's and visitors.

- Understand and comply with this policy at all times whilst on the church's premises, or representing the church.
- Ensure their visitors are made aware of the policy.
- Inform management if they believe the policy has not been honoured.

The Church Safety Officer and Elders are responsible for:

- Making sure all persons on the churches premises are made aware of this policy.
- Encouraging people to give up smoking.
- Managing the implementation and review of this policy.

1.5 Communication:

The church will ensure that:

- The policy is communicated within the job application process.
- All relevant persons receive a copy of this policy during the induction process.
- This policy is easily accessible to all relevant persons.
- All relevant persons are informed when a particular activity aligns with this policy.
- All relevant persons have the power to actively contribute to and provide feedback on this policy.
- All relevant persons are notified of all changes to this policy.
- Successes are celebrated within the workplace.

1.6 Monitoring and review:

This policy will be reviewed in accordance with the WHS Policy review protocols.

This process will involve:

- Assessing progress and seeing if objectives have been met.
- Providing all relevant persons with the opportunity to give feedback.
- Considering all feedback and suggestions and making changes as required.
- Communicating the reviewed policy to workers.

#Traffic Management

GENERAL GUIDE FOR WORKPLACE.

TRAFFIC MANAGEMENT

TABLE OF CONTENTS

1 GENERAL GUIDE

This General Guide provides information on how to manage traffic risks at a workplace. It is supported by specific guidance material on traffic management for shopping centres, construction workplaces, warehouses, events and an Information Sheet for small business.

Who should use this Guide?

- Traffic at a workplace includes:
- Vehicles such as cars, trucks, vans and buses.
- Powered mobile plant such as forklifts.
- Cyclists.

This General Guide applies to all businesses or undertakings where there is a risk of traffic colliding with people in the workplace. However this does not apply to work which is carried out on or near a public road, for example constructing or repairing a road or working on a footpath or nature strip adjacent to a road.

If your work involves a public road you should contact your local road authority for the relevant traffic management requirements and guidelines.

For information about traffic management at mining workplaces, you should contact your local mining regulator.

2 WHO HAS DUTIES UNDER THE LAW?

Everyone in the workplace has a work health and safety duty. The main duties are set out in Table 1.

Table 1 Duty holders and their obligations

Who	Duties
A person conducting a business or undertaking	A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that workers and other people are not exposed to health and safety risks arising from the business or undertaking. A 'person conducting a business or undertaking' is a term that includes all types of working arrangements such as organisations, partnerships, sole traders or small business owners. For example a builder, a manufacturing business, a fast food franchisee and a self-employed person operating their own business are all persons conducting a business or undertaking. A person conducting a business or undertaking who has management or control of a workplace must ensure, so far as is reasonably practicable, the workplace, the means of entering and exiting the workplace and anything arising from the workplace is without risks to health and safety. A person conducting a business or undertaking with management or control of powered mobile plant at a workplace must ensure it does not collide with pedestrians or other powered mobile plant. If there is a possibility of collision, the plant must have a warning device alerting persons who may be at risk from its movement.

Designers, manufacturers, suppliers and importers	Designers, manufacturers, suppliers and importers of plant or structures must ensure, so far as is reasonably practicable, the plant or structure is without risks to health and safety. For example, workplaces can be designed with vehicle and pedestrian routes that are separated. Mobile plant can be designed so the operator can see easily and the plant has speed limiters and warning devices.
Officers	Officers, such as company directors, have a duty to exercise due diligence to ensure the business or undertaking complies with the Work Health and Safety (WHS) Act and Regulations. This includes taking reasonable steps to ensure the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks from traffic at the workplace.
Workers and others	Workers and other people at the workplace must take reasonable care for their own health and safety, co-operate with reasonable policies, procedures and instructions and not adversely affect other people's health and safety.

3 HOW CAN TRAFFICE RISKS BE MANAGED:

Use the following steps to ensure, so far as is reasonably practicable, that workers and other people are not exposed to health and safety risks:

Find out what could cause harm. The following can help you identify potential hazards:

- Observe the workplace to identify areas where pedestrians and vehicles interact. Think about the floor plan of your workplace, if work is done close to public areas, when traffic volumes are higher, where potential blind spots are and other areas of poor visibility. Security footage may be useful if available.
- Ask your workers, pedestrians and visiting drivers about traffic management problems they encounter at your workplace.
- Review your incident and injury records including near misses.

A checklist to help you identify traffic hazards is available on the Safe Work Australia website.

Assess the risk. In many cases the risks and related control measures will be well known. In other cases you may need to carry out a risk assessment to identify the likelihood of somebody being harmed by the hazard and how serious the harm could be. A risk assessment can help you determine what action you should take to control the risk and how urgently the action needs to be taken.

Most vehicle incidents at the workplace are from collisions between pedestrians and vehicles reversing, loading and unloading. People who work with or near vehicles are most at risk. Customers and visitors may also be at risk.

Take action to control the risk. The WHS laws require a business or undertaking do all that is reasonably practicable to eliminate or minimise risks.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk control. You must work through this hierarchy to manage risks.

The first thing to consider is whether hazards can be completely removed from the workplace. For example, risks can be eliminated by physically separating pedestrian routes from vehicle areas. This could be done by conducting activities at times when pedestrians are not present, using physical barriers or overhead walkways.

If it is not reasonably practicable to completely eliminate the risk then consider one or more of the following options in the order they appear below to minimise risks, so far as is reasonably practicable:

- Substitute the hazard for something safer e.g. replace forklifts with other load shifting equipment like a walker stacker or pallet jacks
- Isolate the hazard from people e.g. by creating a delivery area away from other pedestrians or work activities
- Use engineering controls e.g. speed limiters on forklifts, presence sensing devices or interlocked gates.

If after implementing the above control measures a risk still remains, consider the following controls in the order below to minimise the remaining risk, so far as is reasonably practicable:

- Use administrative controls e.g. warning signs or schedule delivery times to avoid or reduce the need for pedestrians and vehicles to interact
- Use personal protective equipment (PPE) e.g. high visibility clothing.

A combination of the controls set out above may be used if a single control is not enough to minimise the risks.

You need to consider all possible control measures and make a decision about which are reasonably practicable for your workplace. Deciding what is reasonably practicable includes the availability and suitability of control measures, with a preference for using substitution, isolation or engineering controls to minimise risks before using administrative controls or PPE. Cost may also be relevant, but you can only consider this after all other factors have been taken into account.

Check your control measures regularly. To ensure they are working as planned. Control measures need to be regularly reviewed to make sure they remain effective, taking into consideration any changes, the nature and duration of work and that the system is working as planned.

Further information on the risk management process is in the Code of Practice:
Code of Practice: How to manage work health and safety risks.

3.1 WHO IS INVOLVED?

You must consult your workers and their health and safety representatives (if any) when deciding how to manage the risks of traffic in the workplace, including when making changes. You should encourage reporting of safety problems.

If there is more than one business or undertaking involved at your workplace you must consult them to find out who is doing what and work together so risks are eliminated or minimised so far as is reasonably practicable.

This may involve discussing site-specific requirements including entering and exiting the site, vehicle parking, delivery areas and scheduling suitable times for loading and unloading.

Further information on consultation requirements is in the Code of Practice: Work health and safety consultation, co-operation and co-ordination.

3.2 TRAFFIC MANAGEMENT PLANS:

If you have a large workplace with a high volume of traffic a traffic management plan can help you communicate how you are managing traffic risks in your workplace.

A traffic management plan may include details of:

- The desired flow of pedestrian and vehicle movements
- The expected frequency of interaction of vehicles and pedestrians
- Illustrations of the layout of barriers, walkways, signs and general arrangements to warn and guide traffic around, past, or through a work site or temporary hazard, and
- How short term, mobile work and complex traffic situations will be managed.

A traffic management plan could also set out:

- Responsibilities of people managing traffic in the workplace
- Responsibilities of people expected to interact with traffic in the workplace, and

- Instructions or procedures for controlling traffic including in an emergency.

Workplaces with a high volume of traffic should establish a traffic management consultative committee made up of health and safety representatives, representatives from the operators of powered mobile plant, supervisors and from any other group sharing the traffic routes and working areas of the vehicles.

A traffic management plan should be regularly monitored and reviewed and importantly following an incident to ensure it is effective and takes into account changes at the workplace. In workplaces with a traffic management consultative committee, the committee should carry out the monitoring and review of the traffic management plan.

You should ensure workers are familiar with the traffic management plan and you should provide information, instruction and training on its use.

3.3 INFORMATION, TRAINING, INSTRUCTION AND SUPERVISION:

Before mobile plant is used in your workplace you must provide anyone who will use it with the information, training, instruction or supervision necessary to protect them and others from the risks associated with traffic in a workplace.

Workers including contractors who are required to perform duties associated with traffic management at the workplace should be trained to perform those duties. Training should be provided to workers by a competent person.

Responsibilities for health and safety management must be clearly allocated. It is important each worker, contractor, subcontractor, visiting driver and other relevant people clearly understand their role in following safe work practices and taking reasonable care of themselves and others.

You should provide supervision to ensure safety procedures are being followed, particularly if you are relying on administrative control measures to minimise risks.

You must ensure so far as is reasonably practicable, everyone who has access to your workplace including visitors are provided with information necessary to protect them from risks to their health and safety, for example instructions on designated safe routes, parking areas, pedestrian exclusion zones and speed limits. This could be addressed through an induction process at your workplace.

Visitors should report to the reception area or site office and be given information on the safety procedures for the workplace before they are allowed into areas where vehicles and powered mobile plant are used.

You must ensure that any information, training and instruction provided, is presented so it is easily understood by workers. This may require providing information and training material in different languages.

4 WAYS TO CONTROL TRAFFIC RISKS:

4.1 KEEPING PEOPLE AND VEHICLES APART:

The best way to protect pedestrians is to make sure people and vehicles cannot interact. Where powered mobile plant is used at a workplace, you must ensure it does not collide with pedestrians or other powered mobile plant.

This can be achieved by not allowing vehicles in pedestrian spaces or not allowing pedestrians in vehicle operating areas, for example using overhead walkways (see Figure 1).

However this may not be reasonably practicable in all workplaces. If people and vehicles cannot be separated you should consider using:

- Barriers or guardrails at building entrances and exits to stop pedestrians walking in front of vehicles (see Figure 2)
- High impact traffic control barriers (see Figure 3)
- Temporary physical barriers (see Figure 4), or
- Separate, clearly marked footpaths or walkways e.g. using lines painted on the ground or different coloured surfacing (see Figure 5).

Pedestrian routes and intersections should be clearly marked, unobstructed, well maintained and well lit.

More examples of how pedestrians and vehicles can be kept apart are in Appendix A.

FIGURE 1 Overhead walkways

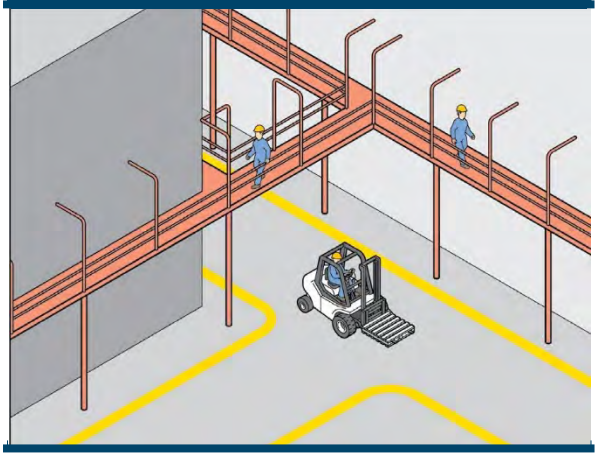


FIGURE 2 Guardrail

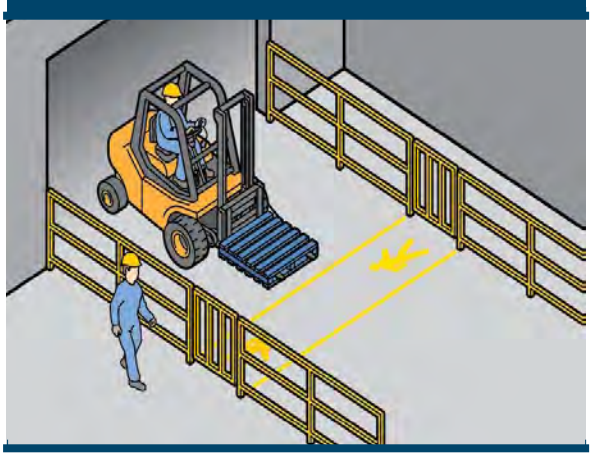


FIGURE 3 High impact barrier

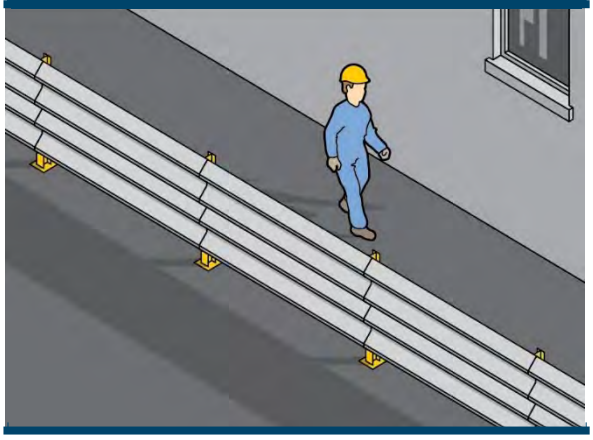


FIGURE 4 Temporary physical barriers separating pedestrians from powered mobile plant

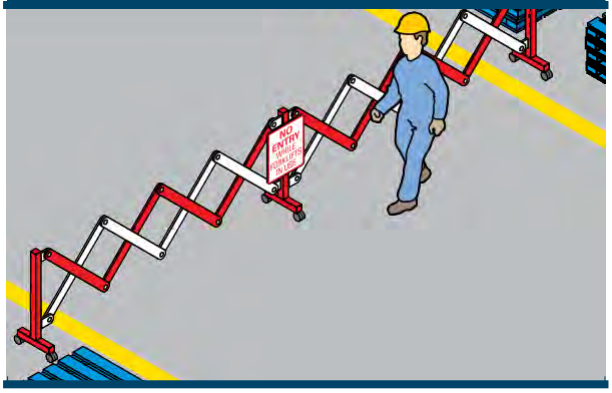
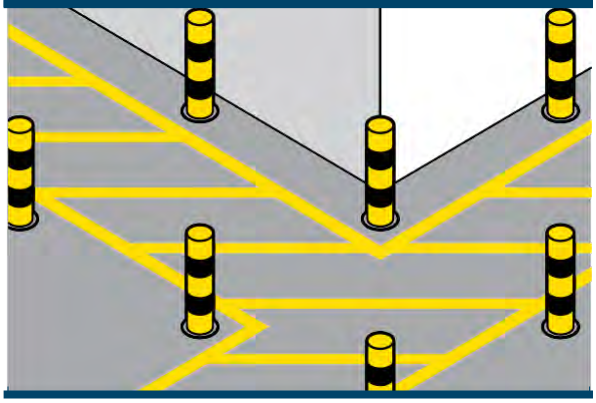


FIGURE 5 Walkway marked with lines and bollards



4.2 VEHICLE ROUTES:

Vehicle routes at the workplace should have a firm and even surface, be wide and high enough for the largest vehicle

using them and be well maintained and free from obstructions. They should be clearly sign-posted to indicate speed limits, traffic calming measures like speed humps and parking areas.

Reducing speed is very important where administrative control measures are the only reasonably practicable Approach. Speed limits should be implemented and enforced and traffic calming devices like speed humps considered. Variations to speed limits should be clearly signposted.

More examples of how vehicle routes can be managed safely are in Appendix A.

4.3 PEDESTRIAN CROSSINGS:

If pedestrians have to cross vehicle routes in the workplace you can manage the risk in a number of ways, for example interlocked gates or gates with warning devices, physical barriers or rails, traffic light systems or having a competent worker direct traffic.

Pedestrian crossings should be clearly marked with ground markings, lights or signs. If the vehicle route to be crossed is a road or railway consider control measures that will work with those already established by the relevant authority, for example a local council or rail authority.

Both pedestrians and vehicles should have good visibility, for example pallet goods should not be stored in a way that would obscure vision.

Procedures indicating who has right of way at crossings should also be established.

4.4 PARKING AREAS:

Parking may be needed for workers, visitors, trucks and other vehicles used in the workplace. Consider setting out the workplace so parking areas:

- Are located away from busy work areas and traffic routes.
- Have walkways leading to and from parking areas which are separated from vehicles or vehicle routes e.g. use physical controls like barriers or bollards to prevent vehicles from crossing into walking areas - (see Figure 6).
- Are clearly marked and sign-posted, well-lit and unobstructed.

More examples of how parking areas can be managed safely are in Appendix A.

FIGURE 6 Pedestrian walkway in car park

4.5 REVERSING VEHICLES:

If reasonably practicable eliminate the need for reversing by using drive-through loading and unloading systems, multi-directional mobile plant or rotating cabins.

Where this is not possible consider:

- Using devices like reversing sensors, reversing cameras, mirrors, rotating lights or audible reversing alarms
- Using a person to direct the reversing vehicle if they cannot see clearly behind—this person should be in visible contact with the driver at all times and wear high-visibility clothing
- Providing designated clearly marked, signposted and well-lit reversing areas, and
- Excluding non-essential workers from the area.

More examples of how the risks of reversing vehicles can be managed are in Appendix A.

4.6 LOADING AND UNLOADING VEHICLES:

Figure 7 provides examples of measures to manage loading and unloading activities safely.

It is important to make sure visitors including visiting drivers are aware of the workplace layout, the route they should take and safe working procedures for the workplace.

Provide drivers with safe access to amenities away from loading areas or other vehicular traffic. To reduce driver fatigue a seat should be provided for long loading times.

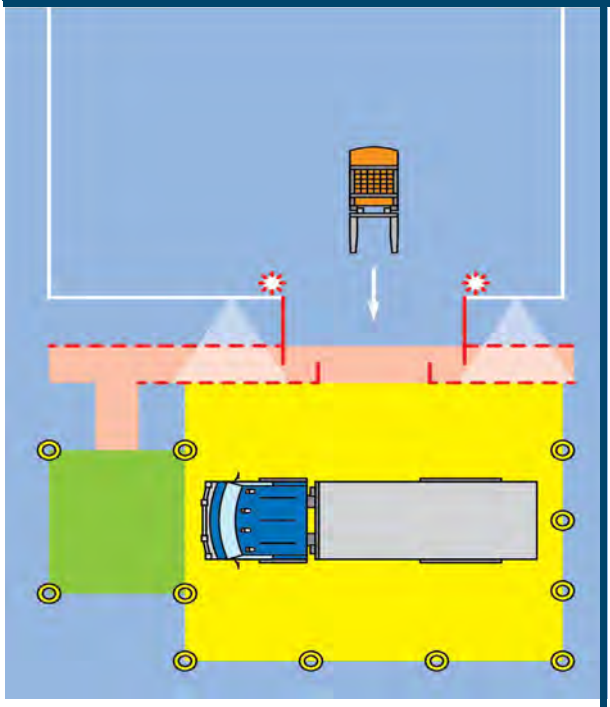
If you have created zones to separate vehicles from people—called 'exclusion zones'—the person operating the powered mobile plant such as forklifts should control the exclusion zone. Clear operating procedures should be understood and implemented at all times.

Provide effective ways to warn of loading in progress to other plant operators, drivers and pedestrians. Warning devices can include signage, cones, lights, alarms and horns.

Ways to stop vehicles from moving during loading and unloading activities include using:

- Vehicle or trailer restraints.
- Dock locks.
- Air brake isolation interlock devices.
- Traffic lights.
- Barriers or other 'stop' signals.
- Systems for controlling access to vehicle keys or the cabin.
- Safe systems of work which make sure the driver is aware of when it is safe to leave.

FIGURE 7 Example of traffic control measures for truck loading and unloading



	Clearly designated pedestrian walkway protected by physical barriers with staggered barriers to control approaching pedestrians.
	Pedestrian exclusion zone has been established for a distance equal to the height of the load from the ground plus an additional allowance for the type of load.
	Beam from pedestrian-sensing device.
	Barriers, bollards, witches hats or paint marking the pedestrian exclusion zone.
	Warning light activated by pedestrian sensors.
	Establish a safety zone for the driver and other pedestrians. The driver should be in full view of the forklift operator. Stop the loading and unloading activities if the driver cannot be seen or needs to enter the exclusion zone. Alternatively, if it is safe to do so the system of work can provide for the driver to stay in the cabin during loading and unloading. Effective communication systems between the plant operator and the driver should be used such as a system of hand signals or two-way radios.

4.7 SIGNS AND ROAD MARKINGS:

Clear road markings like reflective paint and signs should be used to alert pedestrians and vehicle operators to traffic hazards in the workplace.

Signs should be provided to indicate exclusion and safety zones, parking areas, speed limits, vehicle crossings and hazards like blind corners, steep gradients and where forklifts are in use.

Signs and road markings should be regularly checked and maintained so they can be easily seen.

4.8 LIGHTING:

Traffic routes, manoeuvring areas and yards should be well lit with particular attention given to junctions, buildings, walkways and vehicles routes. Where possible they should be designed to avoid extreme light variation, for example drivers moving from bright into dull light or vice versa.

APPENDIX A – TRAFFIC CONTROL MEASURES:

How can people and vehicles be kept apart?

- Use interlocking, chicaned or hinged gates that open towards the pedestrian—these methods create a stop or pause in the pedestrian's movement before entering a vehicle area.
- Use boom gates and proximity devices which trigger boom gates.
- Provide separate entries and exits for pedestrians and vehicles.
- Create exclusion zones e.g. forklift-only areas in loading bays or pedestrian-only areas around tearooms, amenities and entrances.
- Schedule work to prevent mobile plant and pedestrians being in the same area at the same time.
- Have pedestrian routes which represent paths people would naturally follow to encourage pedestrians to stay on designated safe routes and avoid taking potentially hazardous shortcuts.
- Remove or identify blind corners using bollards.
- Use vision panels in pedestrian doors entering vehicle areas.
- Use staging areas to facilitate alternative load shifting equipment.

How can vehicle routes be managed safely?

Provide vehicle routes that are:

- one-way with enough passing space around stationary vehicles
- wide and high enough for the largest vehicle using them including their load, taking into account turning circles, stopping distances and the need to reverse
- flat or only have small slopes - steep gradients which cannot be avoided should be clearly signposted and guarded. Powered mobile plant like forklifts should operate on gradients only if the manufacturer specifies they are able to do so
- avoid sharp or blind corners
- well drained, maintained and lit, and
- free from obstructions, grease, and surface damage.

- Manage queuing vehicles with enough space so queues do not impact on other traffic or block emergency exits. Workplaces with a large number of trucks should consider a queuing time slot system.
- Use a gatehouse to control traffic time slots.
- Provide separate areas for tarping, load restraint, load splitting, maintenance and clean down.
- Provide separate entry and exit points for large vehicles.

How can I keep people safe from powered mobile plant?

- Use signs to give advance warning to pedestrians and plant operators and to indicate who must give way.
- Isolate pallet racking aisles.
- Implement procedures setting out when and how mobile plant operators must give way to pedestrians.
- Implement systems of work to prevent forward carrying of loads if they obstruct the operator's view.
- Minimise the number of mobile plant working at one time.
- Use speed-limiting devices and implementing speed limits.
- Use a combination of audio and visual warning devices like alarms, horns and flashing lights and ensure these are working when the plant is operating.
- Provide high-visibility or reflective clothing for workers and plant operators and high-visibility markings for mobile plant.

Note: Certain types of plant like forklifts and some types of cranes require the operator to have a high risk work license before they can operate plant. See Schedule 3 of the WHS Regulations for the classes of high risk work licenses and types of plant involved.

How can parking areas be managed safely?

- [ ] Set out parking areas so they are easy to drive in, out of and around in e.g. try to avoid the need for reversing and consider how large vehicles will be able to use the space safely.
- [ ] Use devices like speed humps to slow vehicles down.
- [ ] Prevent parked vehicles from rolling by parking them on level ground, preferably in a designated parking area with the brake firmly applied. Where this is not possible consider installing wheel humps in parking areas to prevent vehicles rolling away.
- [ ] Turn the wheels of the vehicle towards a safe stopping place like a curb or a wall so the vehicle or equipment does not accidently roll away.
- [ ] Chock the wheels of parked mobile plant.
- [ ] Avoid parking smaller vehicles behind large ones or in areas where the driver does not have clear visibility of the vehicle.

How can I keep people safe from reversing vehicles?

- [ ] Ensure reversing sensors, reversing cameras, rear vision mirrors, fixed safety mirrors and windscreens are kept clean and in working order.
- [ ] Use radios and other communication systems.
- [ ] Fix mirrors at blind corners e.g. convex mirrors.
- [ ] Fit refractive lenses on rear windows to help drivers see ‘blind spots’.
- [ ] Ensure visiting drivers are familiar with workplace routes and reversing areas.

What can I do to make sure vehicles are safe?

- [ ] Select vehicles and powered mobile plant which are suitable for the tasks.
- [ ] Ensure vehicles are fitted with seatbelts and parking brakes.
- [ ] Ensure vehicles are subject to a regular maintenance program.
- [ ] Report faults on all vehicles and powered mobile plant.
- [ ] Drivers should carry out basic safety checks before using vehicles.