Hazard Identification

Aim

The Organisation has obligations under Work Health and Safety legislation to identify foreseeable hazards that may arise in the workplace and to assess the risk of potential harm arising from these hazards.

The Organisation must be able to demonstrate that it has implemented risk control measures to reduce the inherent risk of workplace hazards to as low as reasonably practical. Each identified hazard is assessed for inherent risk using the included Risk Assessment Framework Risk control measures will be identified and considered in terms of the Hierarchy of Risk Control.

Purpose

The purpose of this procedure is to ensure that a formal process exists for hazard identification and risk assessment, to ensure that The Organisation meets its duty of care to its employees, customers, contractors and visitors can be undertaken, and so health and safety legal requirements can be met. The procedure provides information and minimum guidelines on the process for identification, assessment and control of identified hazards within The Organisation operations to reduce the the risk of harm or injury to The Organisation staff, contractors, or visitors.

Hazard Identification

Hazards may be identified through, but not limited to, the following processes:

- Formal Risk Assessments;
- Formal hazard studies/investigations;
- Accident/Incident investigation;
- Job Hazard Analysis;
- Toolbox and prestart meetings, Step Back, Take 5's or other methods designed to facilitate hazard identification;
- Verbal or email notification of hazards by individual employees, contractors, sub-contractors or visitors;
- Customer site procedures, inductions and Safe Work Method Statements;
- Visual inspections of the workplace;
- Assessment of new plant, equipment, processes and substances prior to introduction
- New information that affects safety and health assessments such new legislation, regulations or standards, or customer procedures;
- Reports from external persons/bodies such as WorkSafe, circulars from professional organisations and WHS Consultants;
- Reviews of contractor proposed work methods and work practices; or
- Supplier product specifications and reviews.

All Hazards not previously identified will be subject to a Risk Assessment.

Hazard Categories

Hazard categories will include, but may not be limited to, the following:

Physical hazards, including:

- mechanical risks from machinery
- exposure to noise and vibration,
- inadequate lighting
- fire and explosion
- electricity
- heat
- cold
- poor housekeeping.

Hazardous substances, including:

- flammable solvents
- corrosives and poisons
- hazards relating to chemicals can arise from;
- ingestion
- contact or inhalation of vapours
- contact or inhalation of mists

Ergonomic hazards, concerned with the interaction of the person and machine and may concentrate on:

- manual handling
- tools and equipment
- work stations
- work process
- the workplace as a whole
- inadequate design considerations for both tools and equipment design can lead to injury.

Activities and tasks which may lead to injury, including but not limited to:

- Lifting or lowering loads;
- Carrying, stacking, pushing, pulling, rolling, sliding and wheeling of loads;
- Operating levers and other mechanical devices;
- Maintaining an unbalanced posture while performing these tasks.

Psychological hazards include:

- work schedule arrangements and shiftwork
- workload
- dealing with conflict, public
- harassment
- discrimination and
- low level constant noise

Assessment of Risk

Risk assessment involves analysing the inherent risk and taking into consideration the components of likelihood and consequence. The residual risk is determined by considering the likelihood and consequence following implementation of risk control options.

The level of risk associated with individual hazards is assessed against two criteria:

the probability that the identified situation will occur; and

Level	Description of Consequence
Insignificant (C1)	Near Hit with NO injury, but potential to cause injury Environmental incident with potential to damage the environment but with NO actual damage
Minor (C2)	Minor Injury requiring first aid treatment, cuts/bruises (no stitches required), minor burns Minor Environmental release. Impact immediately managed or contained
Moderate (C3)	Medical Treatment Injury recovery is likely, broken bones, stitches, burns requiring medical attention Environmental release with moderate detrimental effects requiring remedial action, reportable to authorities
Major (C4)	Lost Time Injury, hospitalisation, permanent disability, serious internal and/or head injuries Environmental non-permanent impact with major detrimental effects
Catastrophic (C5)	Fatality or permanent disability to ten or more people Environmental permanent & significant impact in significant areas

the likely outcome should that situation occur.

Level	Likelihood / Probability
Negligible (L1)	The event will occur only in exceptionally rare circumstances
Unlikely (L2)	The event may occur at some time but is unlikely to do so
Possible (L3)	The event could occur
Likely (L4)	The event will occur in most circumstances and is likely to do so
Almost certain (L5)	The event will almost certainly occur

Risk is identified using the following ranking system:

RISK RATING MATRIX

Consequence → / Likelihood ↓	Low (C1) No Injury most probable outcome; Losses in <$500; Environmental impact small localised and contained;	Minor (C2) FAI most probable outcome; Losses in excess >$500 <$15,000; Environmental impact, contained impact requiring minor remedial action.	Moderate (C3) MTI or LTI most probable outcome; Losses in excess >$15,000 <$50,000; Environmental impact, medium term contained impact requiring considerable remedial action.	Major (C4) LTI most probable outcome; Losses in excess >$50,000 <$100,000; Environmental contamination off-site, considerable remediation required	Critical (C5) A fatality(s) most probable outcome; Losses in excess >$100,000; Irreversible/ irreparable environmental contamination.
Rare (L1) A similar incident is unlikely to occur again	L2	L3	L4	M5	M6
Unlikely (L2) A similar incident could occur in the next 5 years	L3	L4	M5	M6	H7
Possible (L3) A similar incident could occur in the next 1 year	L4	M5	M6	H7	H8
Likely (L4) A similar incident could occur in the next 6 months	M5	M6	H7	H8	E9
Almost certain (L5) A similar incident could occur in the next 1 month	M6	H7	H8	E9	E10

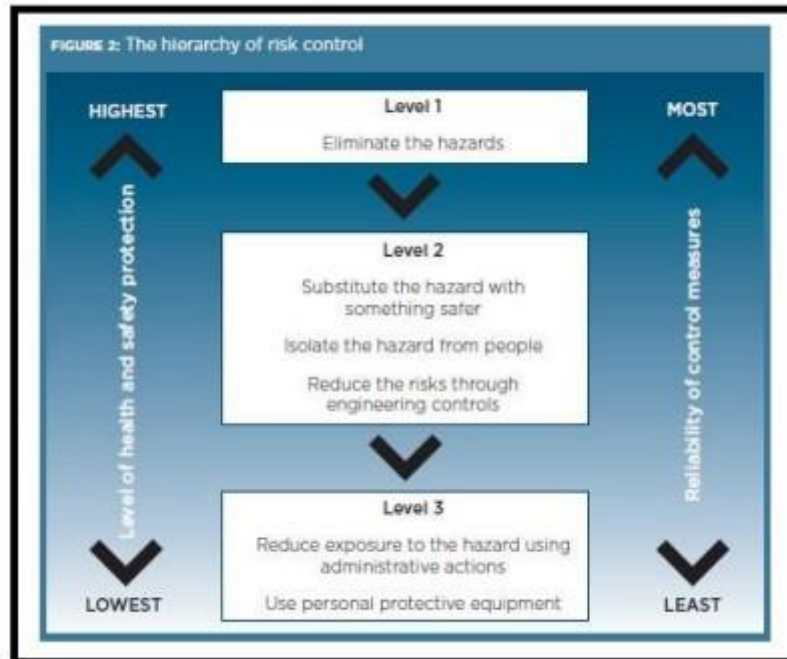| Risk Score	Risk Rating	Required Action	Hierarchy of Controls		
2-4	Low risk	Manage and Monitor by routine internal procedures.	1.	Elimination	Complete elimination of risk
5-6	Moderate risk	Specific monitoring or procedures to be implemented. Management responsibility to be specified and strategies implemented as part of day-to-day activities.	2.	Substitution	Replacement of material, process, substance, etc.
7-8	High risk	Immediate action to be implemented by Operations Manager and HSEQ Manager. GM to be notified	3.	Engineering	Designing risks out or isolation of risks
9-10	Extreme risk	Immediate action to be implemented; this level of risk needs detailed research and planning by Operations Manager and HSE Q manager. GM must be notified.	4.	Administrative	Adjusting the time or conditions of risk exposure, including training options
			5.	Personal protective equipment	Provision of PPE where other options are not practicable

Risk Score	Risk Rating	Required Action
2-4	Low risk	Manage and Monitor by routine internal procedures.
5-6	Moderate risk	Specific monitoring or procedures to be implemented. Management responsibility to be specified and strategies implemented as part of day-to-day activities.
7-8	High risk	Immediate action to be implemented by Operations Manager and HSEQ Manager. GM to be notified
9-10	Extreme risk	Immediate action to be implemented; this level of risk needs detailed research and planning by Operations Manager and HSE Q manager. GM must be notified.

Hierarchy of Controls

The Organisation will comply with the relevant Work Health & Safety Acts, Work Health & Safety Regulation, Codes of Practice and Australian Standards for the management of risks and hazards in the workplace.

The hierarchy of risk control when implementing any risk control measures starting at level 1 and if not possible uses a combination of the remaining control methods:

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

Level of health and safety protection

HIGHEST

Level 1
Eliminate the hazards

Level 2
Substitute the hazard with something safer
Isolate the hazard from people
Reduce the risks through engineering controls

Level 3
Reduce exposure to the hazard using administrative actions
Use personal protective equipment

LOWEST

MOST

Reliability of control measures

LEAST

The Organisation will always aim to eliminate a hazard, which is the most effective control. If this is not reasonably practicable, you should 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 in 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 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, or
  - to supplement higher level control measures (as a back-up).

Review of Control Measures

The Organisation will review and, as necessary revise control measures implemented under the Work Health & Safety Regulation 2011 and relevant Codes of Practice so as to maintain, so far as reasonably practicable, a work environment that is without risks to health and safety.

As part of the review process regular inspections will be conducted and recorded for reporting to all relevant persons

The Organisation will review and as necessary revise a control measure if;

- the control measure does not control the risk it was implemented to control so far as reasonably practicable when;
- the results of monitoring indicate the measure does not control the risk
- a notifiable incident occurs because of the risk
- before a change at the workplace that is likely to give rise to a new or different risk to health and safety
- a new relevant hazard is identified
- through consultation that a review is necessary
- the WHSR or workers requests a review
- the work environment changes and the controls in place may no longer be applicable to the risk or hazard

Documentation

The Organisation identifies the potential hazards of the proposed work activities, assesses the risks involved and develops controls measures to eliminate, or minimize, the risks. The risk management process is carried out in consultation with employees. Risk Assessments are generically identified as EF26.

Work Method Statements

In some circumstances, the Organisation is required to operate under the client's documentation. In such circumstances, where documented methods or control methods differ, the more rigorous control method will be adopted. Where appropriate, these measures will be incorporated into the Organisation's documents.

Risk Assessments, WHS Management Plans and Control Measures are reviewed annually.

Document Relationships

The relationship between the documents and the flow of risk related information is outlined in the diagram below.

ALLPRO

Hazard Identification Methods

Hazard Identification

Risk Management Process

Employee Consultation

Risk Analysis

Development of Control Measures

Risks Register

Corrective Action & Continual Improvement Process

Work Method Statement

Toolbox Talks

JSEA

Site Inspections

Incident Investigation

Operations

Ongoing Risk Management

Satisfactory

No

Issued Thursday, 6 March 2025