# 6.0 HAZARD IDENTIFICATION AND MANAGEMENT

## 6.1 Risk Assessment and Hazard Identification

We recognise that risk assessments are the most important part of effective health and safety management. Risk assessments help us to prevent accidents and ill health by considering the hazards that exist and how we manage them. Is the hazard an actual or potential source of harm? This may include harm that may be significant due to extent and frequency of exposure to the hazard, or harm that does not usually occur or is not easily detectable until a significant time after exposure eg. noise and chemicals. From these assessments, we can develop safe systems and methods of work and ways to prevent problems occurring.

We will:

* Appoint a competent person or persons to carry out risk assessments
* Carry out suitable and sufficient risk assessments of our activities
* Carry out detailed risk assessments on hazardous activities
* Implement the control measures and further actions required to reduce risk identified in the assessments
* Bring the significant findings of the risk assessments to the attention of those affected
* Amend our risk assessments when changes occur, and review them regularly to ensure they are kept up to date
* Train staff on the principles of risk assessment, in particular the identification of hazards, and the implementation of control measures to remove or reduce the risk
* Risk assessments are to be recorded in the ‘Hazard Register’

Responsible Person shall ensure competent person or persons to carry out risk assessments.

## 6.2 Procedures for Identifying Significance of Hazards

Once a hazard or potential hazard has been identified it will be assessed for significance based on the following criteria.  Record these details on the ‘Hazard Report form’. For further information refer to ‘Identifying Hazards’ which can be found on the H&S website under ‘Guidance Documents’.

**Five Step Process**

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|  | **Step 1** |
| Identify the hazards |
|  | **Step 2** |
| Decide who might be harmed and how |
|  | **Step 3** |
| Evaluate the risks (Risk Before) and decide on precautions (Risk After) – See Risk Assessment Matrix below. |
|  | **Step 4** |
| Record your findings and implement them. Determine review frequency (check to ensure controls are effective) |
|  | **Step 5** |
| Review your assessment and update if necessary |

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| **Risk Assessment Matrix** |
| **LIKELIHOOD** | **CONSEQUENCE** |
| **MAJOR** (A)Permanent injury or fatality, high financial loss, significant property or equipment damage, long term environmental harm | **MODERATE** (B)Lost time injury or restricted capacity for work injury, medium financial loss, medium property damage, or equipment damage, short term environmental harm | **MINOR** (C)First aid or medical treatment only injury, low financial loss, minimal property or equipment damage, no environmental harm |
| **LIKELY** (1). Could occur frequently | High Risk | High Risk | Medium Risk |
| **MODERATE** (2). Could occur occasionally | High Risk | Medium Risk | Low Risk |
| **UNLIKELY** (3). Could occur at some time | Medium Risk | Low Risk | Low Risk |

**Assessing and treating the risk (hazard)**

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| **Category** | **Action required** |
| **Low Risk:** | Acceptable risk and no further action required as long as risk has been minimised as much as possible |
| **Medium Risk:** | Further action required to minimise risk.  |
| **High Risk:** | Unacceptable risk and further URGENT attention required to minimise risk.  |

*Tip: The hierarchy of controls must be followed when minimising risk which means:*

*If reasonably practicable (further information can be found on the H&S website under ‘Guidance Documents’) eliminate hazard, and if not possible isolate hazard, or if not practicable minimise.*

## 6.3 Hazard Register

All hazards are to be listed in the ‘Hazard Register’ maintained by the Responsible Person, and is to be used for staff and contractor induction and training.

The hazards identified in this register are not sighted as an exhaustive list and shall be considered along with the general potential hazards as identified in other sections of this Health and Safety Manual.

The Responsible Person shall report on the control of significant hazards at the bi-monthly meeting.

Review 2-3 hazards at each Health and Safety meeting to train staff and review content to ensure information is adequate and correct.

***Action:*** *Follow instructions in the ‘Hazard Report form’ to assess and complete your own risk assessment. Salus Workplace Safety has prepared a generic ‘Hazard Register*’.

## 6.4 Hazard Management Process Overview

**ESTABLISH THE CONTEXT**

Identify the task or event, then determine the type of hazards that are present

**RISK ASSESSMENT**

**Identify hazards**

What may happen?

When and where it may happen?

How and why it may happen?

**Analyse risks**

Identify existing controls and determine their:

* Likelihood
* Consequences
* Level of risk

**Evaluate risks**

‘Risk Before’ is before the control is applied.  ‘Risk After’ is after the control has been applied eg. If the hazard is ‘Exposure to Isocyanate Paint’ then the ‘Risk Before’ is HIGH, then once the control is applied of ‘wearing an airfed respirator in the spraybooth’ then the ‘Risk After’ is LOW.

Set priorities for action

**TREAT THE RISKS**

**Identify options**

**Assess options**

**Prepare** and implement action treatment plans

**Analyse** and evaluate any remaining/residual risk

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## 6.5 Controlling Hazards

Significant hazards will be controlled by working through the following steps:

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| **Hierarchy of controls** | **Group controls** | **Individual controls** |
| **ELIMINATE** | * **Design or modify machine to eliminate the hazard**
* **Eliminate by substitution**
* **Eliminate human interaction (eg. automate handling)**
* **Eliminate pinch points**
* **Increase clearances or remove forces**
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| **ISOLATE** | * **Fixed guard**
 | * **Safe by position**
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| **MINIMISE** | * **Presence sensing devices**
* **Light curtains**
* **Computer warnings**
* **Light beacons and strobe lights**
* **Lock-out systems**
 | * **Two-hand controls**
* **Emergency stop**
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| **MINIMISE** | * **Safe system of work**
* **Signage**
* **Training**
* **Supervision**
* **Safe operating procedures(SOP)\* and instructions**
* **Administrative controls (eg. safety inspections)**
 | * **Personal protective equipment**
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 *Source: WorkSafe NZ*

An SOP is a standard operating procedure describing frequent tasks undertaken and consists of pre-operational checks, safety guidance for use, post-use guidance, potential hazards and forbidden uses.  A few sample SOP’s can be found on the H&S website under ‘Guidance Documents’.

After these steps have been taken the Responsible Person or designated employee shall monitor whether the hazard is under control. In particular the Responsible Person shall ensure that all new hazards are being identified and that appropriate controls are put in place for each new significant hazard.

The Responsible Person shall ensure that information pertaining to hazards is used to develop employee training and emergency procedures as appropriate.

Where specific hazards require ‘specialist advice’ (further information can be found on the H&S website under ‘Guidance Documents’) the Responsible Person shall ensure this is obtained where internal competency is not available.

## 6.6 Workplace Inspections

This is one method to identify hazards and track whether existing controls are working. Workplace inspections should be carried out **monthly** using the ‘Workplace Inspection Checklist’.

Staff from different departments should be selected or rostered to carry out inspections to gain varying perspectives, and provide opportunities to participate and to take ownership of this process.

Staff new to the process should be provided with an induction. The most effective method for this is the buddy system. In effect two people will complete each inspection, one experienced and one learning.

## 6.7 Invisible Hazards

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| **Isocyanates** | Isocyanates have the ability to affect lung function suddenly and permanently. A person may be left struggling for breath for decades. |
| **Solvents** | Solvent exposure can result in acute temporary and permanent or prolonged effects on mental function. A person may be labelled with a ‘personality disorder’. See ‘Working safely with hazardous substances’ for further information, this can be found on the H&S website under ‘Guidance Documents’.  |
| **Noise** | Noise induced deafness is extremely common. The psychological effects of not being able to hear other people talking can be severe. |
| **Vibration** | Vibration disease can leave a person severely affected, permanently. |
| **Welding** | Exposure to uncontrolled welding fumes can lead to poor lung function in later life. |
| **Gradual process injuries** | Repetitive work in various industries can leave people with discomfort, pain and injury. |
| **Stress** | Stress (most specifically, the exposure to too much work in the form of constant pressure, constant demands and recurring deadlines) has been shown to result in increased rates of heart disease and mental illness. |
| **Computer use** | For some people, constant computer use can result in severe discomfort, injury and pain. This may compromise their future employment. |

## 6.8 Plant and Equipment

We recognise that work equipment can present hazards and risks to all our staff, not just those using it. We must therefore introduce controls to ensure that the risks associated with the use of work equipment are minimised. We will:

* Ensure the equipment is fit for purpose and meets New Zealand / Australian Standards
* Provide work equipment for staff that is suitable and safe for the tasks intended
* Ensure that all work equipment is maintained, inspected and tested as required – see ‘Record of Testing and Maintenance form'
* Restrict the use of equipment where specific risks have been identified
* Provide information, training and instruction where appropriate to all staff who use work equipment

The Responsible Person shall ensure that health and safety considerations have been taken into account prior to purchase. This consideration shall be demonstrated on the purchase order or other supporting documentation. Further information on ‘Pre Purchasing Process Flowchart and Checklist’ can be found on the H&S website under ‘Guidance Documents’.

Where new equipment, materials or work processes are introduced into the workplace, the Responsible Person shall ensure a hazard assessment is undertaken. New hazards shall be documented and assessed in the ‘Hazard Register’.

## 6.9 Health Monitoring

To comply with Section 10(2) of the Health and Safety at Work Act 2015, employers are required to carry out health surveillance (monitoring).

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| **Hazard** | **Condition** |
| Noise | Hearing loss |
| Dust inhalation | Asthma |
| Isocyanates | Acute organic solvent neurotoxicity |

Baseline monitoring of health shall be undertaken for those significant hazards that cannot be eliminated or isolated as above. Baseline monitoring means to undergo a medical examination by a registered medical practitioner or occupational nurse, at the employer’s cost.

The company shall conduct on-going and regular health monitoring for these hazards. Occupational nurses can undertake this monitoring on-site and provide guidance on frequency and effectiveness training and use of Personal Protective Equipment (PPE).

## 6.10 Drug and Alcohol Testing

Where a company is carrying out ‘safety critical work’ a zero tolerance for alcohol and drugs is warranted.

Safety critical work is defined as work where the actions or inactions of a person may lead directly to an accident/incident affecting the safety of that person and other people, and includes the **operation of machinery and mobile plant equipment**.

**Warning**: Current case law (court decisions) have determined that clear policy and procedure around alcohol and drug testing is required. Therefore to successfully implement a drug and alcohol testing policy you should seek specialist advice.

Where the Company has reasonable grounds for suspecting an employee is under the influence of illegal drugs while at work, the employer may require the employee to undergo a non-intrusive drug test (eg. urine test). This will be conducted by a registered medical professional. The testing process followed will be such as to ensure a safe and accurate test.

Where we believe there are reasonable grounds for suspecting an employee is under the influence of illegal drugs or alcohol at work we will seek the assistance of a qualified professional. For further assistance see ‘Workplace Alcohol and Drug Testing’ which can be found on the H&S website under ‘Guidance Documents’.

## 6.11 Flu Vaccinations

The Company may offer annually to its employees a voluntary flu vaccination to reduce the risk of flu-like symptoms and loss of production time due to illness.

## 6.12 Pregnancy at Work

We recognise that the health and safety of staff who are pregnant, their unborn children, nursing mothers and their babies, and even the ability to become pregnant, can be affected by some work activities.

It is important, therefore, that we carry out risk assessments on the activities carried out by female staff of child bearing age.

We will:

* Identify any activities which may put at risk, female staff of child bearing age, pregnant staff, their unborn children or breast-fed babies
* Carry out 'pregnant worker' risk assessments on the activities carried out by female staff of child bearing age
* Introduce additional control measures, where necessary, to protect those at risk
* Bring the results of the assessments to the attention of relevant staff
* Ensure female staff are aware of the need to report pregnancy to management as soon as it is known, and that this information will be held in confidence
* Re-assess an individual's work activities and conditions when we have been formally notified that they are pregnant, have given birth within the previous six months or are breast-feeding
* Comply with employment law on this subject

For further information refer to ‘Pregnancy at Work Policy’ which can be found on the H&S website under ‘Guidance Documents’.

***Action:*** *Identify any activities which may put at risk, female staff of child bearing age, pregnant staff, their unborn children or breast-fed babies.*

## 6.13 Personal Protective Equipment

The Company **shall** provide personal protective equipment and clothing to protect employees for their specific use while in the workplace and ensure they are used correctly.

The personal protective equipment and clothing provided includes:

* Safety work boots
* Dust masks
* Overalls
* Hearing protection
* Safety glasses
* Fluorescent safety vests (Wardens)

Additional information on ‘Personal Protective Equipment (PPE)’ and ‘What if employees won’t use PPE’ can be found on the H&S website under ‘Guidance Documents’.

The Warden shall have access to a specifically identifiable fluorescent safety vest if required in an emergency (eg. fire or fire drill).

The equipment required for the specific task is issued to the employee at induction.

The safety equipment shall be inspected quarterly and replaced as required.

## 6.14 Cleaning

The Company shall aim to maintain a clean state throughout the day. The premises shall be cleaned as required to eliminate the possibility of disease through dust or accidents occurring due to hazardous material (eg. slips on lubricant spills).

The floor area shall be cleared as necessary should there be a build-up of debris or liquids. Sweeping throughout the day is the preferred method of removal.

## 6.15 Lighting

The Company shall meet the lighting requirements outlined in the Australian / New Zealand Standard: AS / NZS 1680 Series (including amendments).