Hazard and Risk Management Procedures

WORKSAFE NEW ZEALAND | MAHI HAUMARU AOTEAROA

Procedure Owner: General Manager, Human Resources
Approved by:

Date Last Reviewed: March 2016
Date of Next Review: March 2018

Hazard and Risk Management Procedures

These procedures are to be read in conjunction with WorkSafe New Zealand's Hazard and Risk Management Policy.

Introduction

WorkSafe has developed a hazard identification and risk management framework to support the effective management of risks to health, safety and wellbeing, and of the hazards that create those risks.

At an organisational level, our register will detail all of the significant organisational-level risks and hazards, that is, those that impact on the majority of WorkSafe personnel regardless of location or function. This register will be maintained nationally by the Principal Health and Safety Advisor.

Supporting the organisational register are functional and site-based registers. The functional registers will detail the hazards and risks that only impact on personnel working in a specified function. Each of these registers will be maintained nationally by the designated functional owner. Functional registers are maintained for:

- Forestry – Owner: Chief Inspector, Assessments, Southern
- Agriculture – Owner: Chief Inspector, Assessments, Central
- Construction Owner: Chief Inspector, Assessments, Northern
- Manufacturing – Owner: Chief Inspector, Assessments, Northern
- Adventure Activities – Owner: Chief Inspector, Assessments, Central
- Energy Safety – Owner: Manager, Energy Safety
- Major Hazard Facilities – Owner: Deputy Chief Inspector Major Hazard Facilities
- Mining and Extractives – Owner: Chief Inspector Extractives
- Petroleum and Geothermal – Owner: Deputy Chief Inspector Petroleum and Geothermal
- Office-Based Work – Owner: Principal Health and Safety Advisor

Site registers will detail the hazards and risks specific to a particular WorkSafe site and will be maintained by the Site manager.

This hierarchy of risk management will ensure the consistent treatment of common hazards and risks nationally, will avoid duplication, and will enable nationally consistent approaches to the control and management of these hazards and risks to be developed and deployed.

ORGANISATIONAL HAZARD REGISTER

DETAILS ALL ORGANISATIONAL-LEVEL HAZARDS - THOSE THAT IMPACT ON THE MAJORITY OF WORKSAFE PERSONNEL REGARDLESS OF LOCATION OR FUNCTION
MAINTAINED NATIONALLY

FUNCTIONAL HAZARD REGISTER

DETAILS ALL HAZARDS SPECIFIC TO A PARTICULAR FUNCTION- THOSE THAT ONLY IMPACT ON STAFF WORKING IN THE SPECIFIED FUNCTION
MAINTAINED BY FUNCTION "OWNER"

SITE HAZARD REGISTER

DETAILS ALL HAZARDS SPECIFIC TO A PARTICULAR WORKSAFE SITE- THOSE THAT ONLY IMPACT ON STAFF WORKING AT THAT SITE
MAINTAINED BY SITE "MANAGER"

Overview of Hazard and Risk Management Process

The flowchart on the following page summarises the key steps in the hazard identification and risk management process. More detail on each of these steps in this process can be found in the subsequent pages of this procedure.
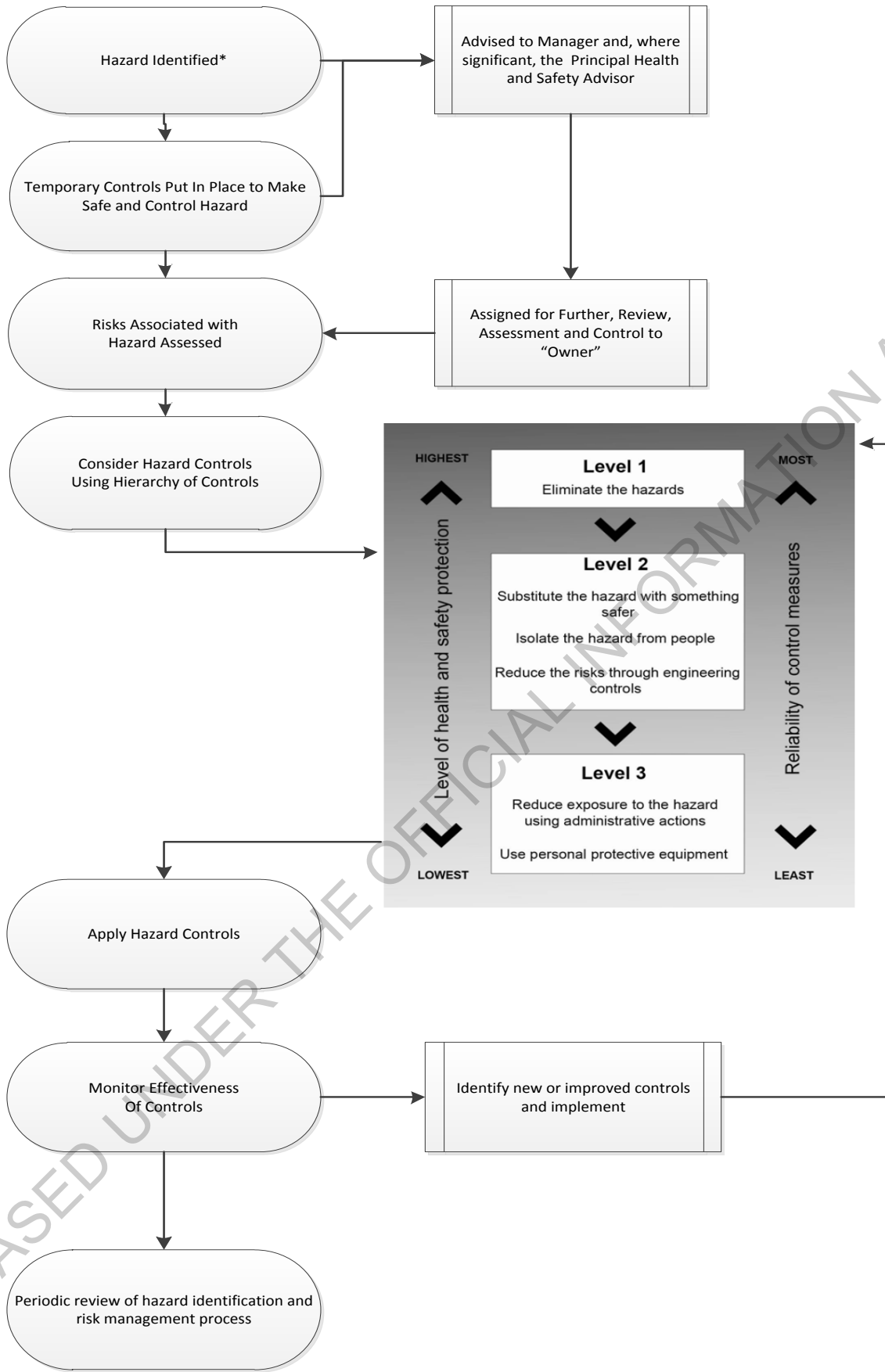
Identifying Hazards

Hazards will be identified in a number of ways. Having multiple approaches to the identification of hazards will ensure that all potential hazards are identified and their risks effectively managed.

Hazards may be identified through:

- o Work process/system analysis and review
- o Plant and equipment analysis and review
- o Building analysis and review
- o Incident and accident investigation
- o Analysis of altered work environment
- o Concerns raised by workers, health and safety representatives (HSRs) or others at the workplace
- o Workplace audits and inspections
- o Site risk analysis

Prior to any new or altered work process being introduced, any new or altered plant or equipment being introduced, any new building being purchased or leased, or any current building being altered or reconfigured, a full risk analysis and assessment must be undertaken to identify and control hazards. The manager leading the introduction of new or changed processes, plant, equipment, or facility is accountable and responsible for ensuring that this occurs.

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                                                    ┌─────────────────────────────┐
   ╭──────────────────────────╮                     │ Advised to Manager and, where│
   │                          │────────────────────▶│ significant, the Principal Health│
   │    Hazard Identified*    │                     │   and Safety Advisor        │
   │                          │                     └─────────────────────────────┘
   ╰──────────────────────────╯
              │
              ▼
   ╭──────────────────────────╮
   │ Temporary Controls Put In │
   │ Place to Make Safe and    │                    ┌─────────────────────────────┐
   │ Control Hazard            │                    │  Assigned for Further, Review,│
   ╰──────────────────────────╯                     │  Assessment and Control to   │
              │                                      │       "Owner"               │
              ▼                                      └─────────────────────────────┘
   ╭──────────────────────────╮
   │  Risks Associated with    │◀───────────────────
   │  Hazard Assessed          │
   ╰──────────────────────────╯
              │
              ▼
   ╭──────────────────────────╮
   │  Consider Hazard Controls │
   │  Using Hierarchy of       │
   │  Controls                 │
   ╰──────────────────────────╯
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HIGHEST ↑   Level of health and safety protection   **MOST** ↑   Reliability of control measures

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 ↓   **LEAST** ↓

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   ╭──────────────────────────╮
   │   Apply Hazard Controls   │
   ╰──────────────────────────╯
              │
              ▼
   ╭──────────────────────────╮                     ┌─────────────────────────────┐
   │  Monitor Effectiveness    │────────────────────▶│ Identify new or improved     │
   │  Of Controls              │                     │ controls and implement       │
   ╰──────────────────────────╯                     └─────────────────────────────┘
              │
              ▼
   ╭──────────────────────────╮
   │ Periodic review of hazard │
   │ identification and risk   │
   │ management process        │
   ╰──────────────────────────╯
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Workers visiting sites other than those controlled by WorkSafe must undertake a site risk analysis before entering the site. This is a dynamic risk assessment process that includes review of information already available from previous visits to the site and direct observation before entering the site. In cases where the risk level is unacceptable

Workers who identify an uncontrolled hazard that places them at an unacceptable level of risk when carrying out their function should report it to their manager immediately and, where appropriate, take steps to make the area safe and control the hazard until a full risk assessment can be completed and appropriate controls are identified and implemented.

Assessing the Risk

Once a hazard has been identified through any of the processes detailed above, it must be assessed to determine the level of risk using the Hazard Identification and Risk Assessment Form in Appendix A of these guidelines. Managers are responsible for ensuring that this occurs for all hazards identified by them, or notified to them.

Once this initial risk assessment has been completed and interim controls put in place to minimise the risk, the form must be sent to the relevant 'owner' who is accountable for reviewing the risk assessment, identifying and implementing controls, reviewing the effectiveness of the controls implemented, entering the hazard on the appropriate hazard register, and notifying Workers about the newly identified hazard and controls. Each of these steps is detailed below.

Hazard Owners:

- Organisational Hazards – Owner: Principal Health and Safety Advisor
- Functional Hazards
    - Forestry – Owner: Chief Inspector, Assessments, Southern
    - Agriculture – Owner: Chief Inspector, Assessments, Central
    - Construction - Owner: Chief Inspector, Assessments, Northern
    - Manufacturing – Owner: Chief Inspector, Assessments, Northern
    - Energy Safety – Owner: Manager, Energy Safety
    - Major Hazard Facilities – Owner: Deputy Chief Inspector Major Hazard Facilities
    - Mining and Extractives – Owner: Chief Inspector Extractives
    - Petroleum and Geothermal – Owner: Deputy Chief Inspector Petroleum and Geothermal
    - Office-Based – Owner: Principal Health and Safety Advisor
- Site-specific Hazards – Site-based Assessment Manager, or, for National Office, Principal Health and Safety Advisor

WorkSafe uses a two-stage process to assess the level of risk in relation to identified hazards. This involves an assessment of the likely consequence in encountering the hazard identified, that is, how seriously someone could be hurt, and the likelihood, that is, how likely it is that individuals would be hurt that severely, using a five point scale. These two assessments are then combined to establish an overall risk rating, which then influences the actions that must be taken in controlling the hazard. This is detailed on the following page. This assessment must be undertaken by the hazard owner and recorded on the Hazard Identification and Risk Assessment Form.

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Consequence: How Severely Could Someone Be Harmed?

	Consequence	Descriptor
☐	Critical	Death or permanent disability
☐	Major	Serious injury or illness, hospital treatment
☐	Moderate	Injury or illness requiring medical treatment and some lost time
☐	Minor	Minor injury or illness, first aid only required
☐	Insignificant	Injury or illness requiring no treatment or first aid

Likelihood: How likely is it Someone Could be Harmed?

	Likelihood	Descriptor
☒	Certain to Occur	Expected to occur in most circumstances
☐	Very Likely	Will probably occur in most circumstances
☐	Possible	Might occur occasionally
☐	Unlikely	Could happen some time
☐	Rare	May happen only in exceptional circumstances

Risk Assessment

Consequences (C)	Likelihood (L)				
	Rare	Unlikely	Possible	Very High	Certain
Critical	moderate	moderate	high	extreme	extreme
Major	low	moderate	high	high	extreme
Moderate	low	moderate	high	high	high
Minor	low	low	moderate	moderate	moderate
Insignificant	low	low	low	low	moderate

Assessed Risk Level		Description of Risk Level	Actions
☐	Low	If an incident were to occur, there would be little likelihood that an injury or illness would result.	Activity can be taken.
☐	Medium	If an incident were to occur, there would be some chance that an injury or illness would result	Controls may be needed.
☐	High	If an incident were to occur, it would be likely that an injury or illness requiring medical	Controls will need to be in place before the activity is undertaken

		treatment would result.	
☐	Extreme	If an incident were to occur, it would be likely that a permanent, debilitating injury or illness, or death would result	Consider alternatives to doing the activity. Significant control measures must be implemented before the activity is undertaken.

Controlling the Hazard

Where the risk assessment identifies that controls either may be needed or must be in place, then steps must be taken to identify and implement appropriate controls. Temporary controls may be put in place until more comprehensive controls can be developed and implemented. The hierarchy of risk controls must be used to identify and implement appropriate controls, both temporary and ongoing. The hierarchy of risk controls will assist in identifying the most effective controls to manage the risk associated with the hazard.

Hierarchy of Risk Controls
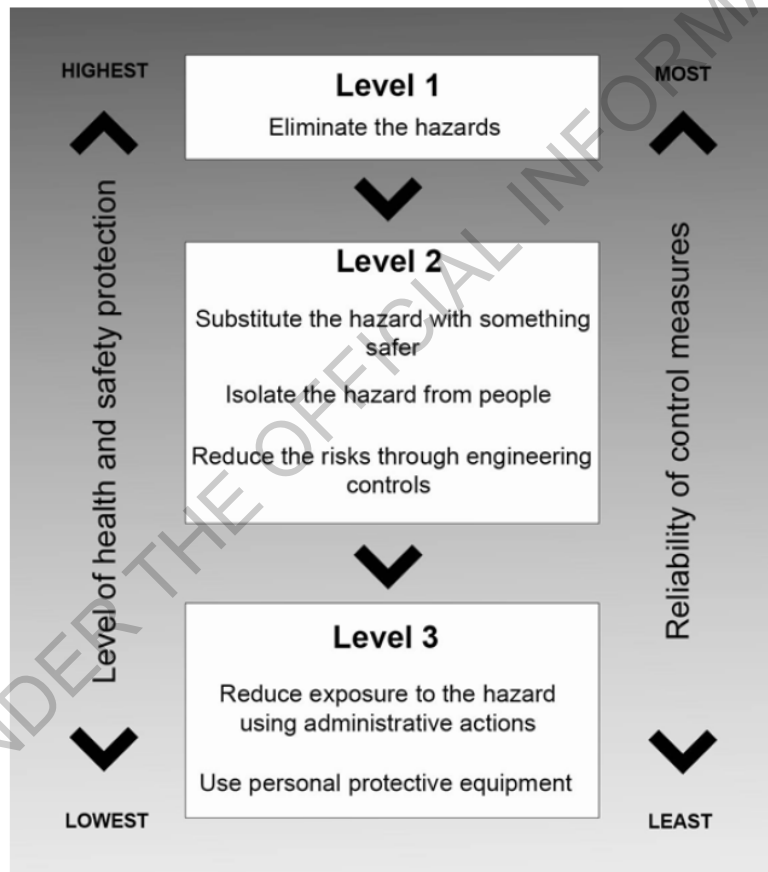
Firstly, consideration should be given as to whether the hazard can be eliminated. If it can, then this should occur.

If the hazard cannot be eliminated, then consideration should be given to substituting the hazard with something safer. If this cannot be done then consideration should be given to isolating the hazard from people. If this is not possible, then consideration should be given to reducing the risks through engineering controls.

If it is not possible to apply either level 1 or level 2 controls, then exposure to the hazard must be reduced using administrative actions and/or personal protective equipment. A combination of level 2 and level 3 controls may be appropriate to manage the risk.

The provision of training and/or education should also be provided to support and enhance the effectiveness of the controls that are put in place to manage the hazard. Controls and training implemented to manage the risk must be recorded on the Hazard Identification and Risk Assessment Form.

Evaluating the Effectiveness of Controls

Where controls have been implemented, they must be reviewed periodically to evaluate their effectiveness. This will enable WorkSafe to determine whether additional controls or action is necessary. The evaluation will consider whether the control is well designed and whether it is effectively implemented.

The effectiveness of hazard controls will be reviewed annually, or more frequently where accident/incident data suggests this is necessary. Hazard owners are responsible for undertaking this review. The outcomes of the most recent review must be recorded on the Hazard Identification and Risk Assessment Form.

Well Designed Control?		Effectively Implemented Control?	
3	Needs Improvement	3	Deficient
2	Adequate	2	Marginal
1	Strong	1	Effective

Monitoring and Review

The hazard owner is also responsible for identifying and actions and activities that are to be undertaken to monitor the hazard/risk, and the effects of exposure to the hazard. This is also to be recorded on the Hazard Identification and Risk Assessment Form.

Recording Identified Hazards – Hazard Registers

The hazard owner is responsible for maintaining the hazard identification and risk assessment forms for all identified hazards in their area of responsibility, for updating the relevant hazard register when new or changed hazards are identified and notified to them, and for ensuring that all Workers potentially affected by the hazard are advised of its existence and of the controls that are in place to manage the risk. All Workers are responsible for maintaining an up-to-date knowledge of the hazards that have been identified within their area of work (organisational, functional and site) and for complying with the controls that are put in place to manage the risk associated with those hazards.

The organisational, functional and site-specific hazard registers are published on the WorkSafe intranet site, and can be accessed here.

Process for reporting hazards

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When an uncontrolled hazard is identified, or it is believed that the existing hazard controls are inadequate; the responsible manager will complete the risk assessment process set out in these procedures. Completed forms will be directed to the Principal Health and Safety Advisor for consideration. The Principal Advisor will review the risk assessment as is necessary and will assign to the appropriate risk "owner" to ensure necessary risk mitigation is implemented. The risk "owner" is also responsible for amending, as necessary, the relevant risk register. Risk "ownership" is as detailed previously regarding organisational, function and site risks.

Scheduled risk management activities

An annual schedule of review will apply to our hazard and risk management activities, notwithstanding that, in addition to the annual schedule, there will be a need to review hazard and risk assessments and registers at other times, when work practices change, when new work practices are introduced, investigations, audits etc.

July	Site review of all hazards, risk assessment and controls
July	Functional review of hazards, risk assessment and controls
August	Hazard registers reviewed to reflect site and functional reviews
August	Organisational review of hazards, risk assessment and controls
September	H&S annual activity planned
November	CE/SLT Sign-off of registers and plan

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APPENDIX ONE – HAZARD IDENTIFICATION AND RISK ASSESSMENT FORM

Hazard Identification
and Assessment Temp

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