Corporate Standard 3

Risk assessment

ISSUE NO	03-02
DATE	01/10/2019
REVIEW DATE	19/02/2020
AUTHOR	John Lee, Graham Ross
Approved by	Head of Health, Safety and Wellbeing

This corporate standard is only valid when viewed via Auckland Council's intranet, Kotahi. If this document is printed into hard copy or saved to another location, you must check that the version number on your copy matches that of the official version online.

Corporate Standard 3 – Risk assessment

Who is this information for?

What is this information about?

What is risk assessment?

What are the benefits of carrying out risk assessments?

What do the terms 'hazard' and 'risk' mean?

How do I assess risks in my area of responsibility?

How are changes managed?

Where can I get further help and advice?

Appendix 1: Guide to determining Risk

Appendix 2: Hierarchy of controls (preventative and protective measures)

Appendix 3: HST 01 – General risk assessment template

Who is this information for?

This document is for managers and team leaders who have responsibility for employees and others in the work environment. It is also for any nominated person who has been given the responsibility for undertaking health and safety risk assessments or managing any changes which might affect health, safety or wellbeing within their department or service at Auckland Council.

What is this information about?

This document has been produced to help you carry out general risk assessment and manage change within your area of responsibility. The law requires Auckland Council, as a person conducting business or undertaking (PCBU), to carry out risk assessments to identify the risks that staff are exposed to while at work. This is to meet our duty under the Health and Safety at Work Act 2015 (HSWA) and Regulations (HSWA (General Risk and Workplace Management) Regulations 2016).

What is risk assessment?

A risk assessment is a careful examination of what, in the area of your responsibility, could cause harm to people, so that you can evaluate whether you have taken enough precautions or should do more to prevent harm. This involves:

- identifying hazards in your workplace
- assessing the level of risk
- deciding how you will deal with the risk
- taking into consideration control measures already in place
- monitoring the control measures for effectiveness.

What are the benefits of carrying out risk assessments?

- Improves staff awareness and understanding of hazards and the risks they carry.
- Provides methods for controlling risks in the work environment to prevent injury.
- Minimises costs associated with accidents.
- Ensures the organisation meets its obligations to its people by keeping them safe from harm, complying with safety legislation and running the organisation efficiently.

What do the terms 'hazard' and 'risk' mean?

'Hazard' means anything that can cause harm. Physical agents (for example, trailing wire or uneven floors, working at height, noise and vibration, live electricity) are one type of hazard you should consider. Other types of hazards include psychological, environmental, chemical, biological, ergonomic etc.

'Risk' is the chance that somebody will be harmed by the hazard. The overall level of risk reflects:

- the likelihood of the hazard being realised
- the consequence associated with the hazard
- the number and nature of people affected.

Determining a risk rating allows you to prioritise and then deal with the highest risks.

How do I assess risks in my area of responsibility?

There are five simple steps to follow.

1. Look for the hazards in tasks or the workplace environment.

2. Decide who might be harmed and how.

3. Evaluate the risks and decide whether existing controls are adequate or whether more controls should be put in place.

4. Record your findings on Risk Manager.

5. Review your risk assessment on an ongoing basis. Update to account for change.

Step 1 – Look for the hazards

First, take a look at the General Risk Assessment template HST-01 (Appendix [No]) which lays out the elements you need to cover. You may already have a good idea of what the hazards are, however, a risk assessment is not just a desk-based exercise. Walking around the workplace and watching specific work activities will help you identify hazards that may cause harm.

We recommend you draw up a list of all tasks undertaken by your department, including those of a non-routine nature, and then identify hazards associated with each task. Ask employees undertaking the work - they may have noticed things that are not so immediately obvious. Accident (and near miss) reports will also give you an indication of areas with the potential to cause harm.

Decide who is going to carry out the risk assessment. The Corporate Health and Safety Policy explains where this responsibility lies. The task may be delegated, but the accountability remains at the level identified in the policy, usually a manager.

The task can be delegated to a competent employee who has an understanding of the potential task and workplace risks. In more complex situations a team approach can be used to complete the risk assessment. This team could include:

- area team leader/s
- health and safety representative
- front line staff
- subject matter expert (SME)
- member of Corporate Health and Safety Team.

Good risk assessment always involves the people doing the work. Remember to engage your staff when undertaking and communicating your risk assessments.

The risk assessment team members must be competent at completing risk assessments. It is important to remember that while the task of risk assessment can be delegated, you cannot delegate the responsibility. You must ensure that a robust and systematic risk assessment is completed.

Handy tip: Prioritise. Ignore trivial hazards; focus on high-risk hazards that can harm people. You should focus on those risks which are reasonably foreseeable (have likelihood of injury or damage that a reasonable person should be able to anticipate in a given set of circumstances), and always consider the worst-case scenario.

Step 2 – Decide who might be harmed

You need to identify who might be harmed by the hazards. In addition to employees, consider:

- contractors
- volunteers
- visitors
- students
- any members of the public.

Consider how each group of people may be affected by the hazard; this will help to identify the best way of controlling the risks.

How does the risk arise? e.g. Asbestos does not present a hazard until it's broken, and fibres are able to be released.

When does it arise? e.g. Water may not be a risk until frozen; weather makes it freeze, then you could have a potential slip issue.

Step 3 – Evaluate the risks and decide whether existing precautions are adequate

You will need to assess the risk rating for each hazard: extreme, high, moderate or low. The risk rating is calculated both before controls have been applied (untreated risk), and after (treated risk).

Your aim will be to make all risks as low as reasonably practicable (reasonably able to be done, taking into account and weighing up all relevant matters) to protect people from harm, by adding further controls to your existing ones. Once you have identified the high-risk hazards and people affected, you can determine how likely it is that harm will occur, taking into consideration the controls already in place.

The guide to determining risk can be used to help you work out the level of risk associated with a particular hazard. Do this by:

- assessing the likelihood and potential consequence for untreated and treated risk
- plotting the likelihood and consequence on the risk matrix to determine the risk rating, and in turn, the priority with which risks should be tackled.

It is important to draw on people's expertise and experience to accurately judge the likelihood of harm.

Hierarchy of controls

Having assessed the treated risk rating you may have found that more needs to be done to reduce the risk. You will have to draw up an action plan showing who will take which action, and by what date controls will be implemented.

In taking action, you need to ask yourself:

- can I get rid of the hazard altogether (elimination)?
- If not, how can I control the risk so that harm is unlikely to occur?

In order to do this, you must work systematically through the hierarchy of controls: see Appendix [No].

Step 4 – Record your findings

You must record the findings and conclusions of your risk assessments. Auckland Council requires all risk assessments to be recorded in Risk Manager. The Risk Manager system will help you manage, track and review your actions. It will also be the base for building your risk registers, vital for your department to understand its risk profile. The assessment, if more cooperative, can be recorded using the General risk assessment template HST-01 (Appendix 3) but it must always be transferred into Risk Manager. Focus on the high-risk findings as a priority.

Risk assessments and controls must be communicated to all staff exposed to that specific risk and potential for harm. This can be achieved via team safety briefings, toolbox talks (informal chats about hazard or risk), or more formal training on carrying out specific tasks.

You must ensure that risk assessments and control measures are explained to new staff at their induction before they start work.

You need to be able to demonstrate:

- an accurate assessment was made of the task/area being assessed
- you involved employees and health and safety representatives working at the area of risk
- you considered all who may be affected
- you dealt with all the obvious high-risk hazards, taking into account the number of people who could be involved, and the likelihood and severity of injury
- the controls are effective and the remaining risk is as low as reasonably practicable
- systematic progress through the hierarchy of controls.

Step 5 – Review and monitor your assessment

It is a requirement to review and monitor your assessment to ensure controls continue to be effective. How often you review your assessment depends on the level of risk. For high risk, greater frequency is needed.

If changes to the work introduce new hazards, you will have to review your assessment. Changes introducing new hazards could be:

- the introduction of new equipment, substances or working procedures
- newly qualified and less experienced staff.

Any significant changes should be reflected in your risk assessment.

High-risk situations

Health and safety legislation and other regulations require that specific risk assessments are carried out in high-risk situations: you must ensure the following activities are controlled:

- remote or isolated work
- atmospheres with potential for fire or explosion
- raised and falling objects (e.g. lifting of loads)
- containers of liquids (e.g risk of drowning)
- loose but enclosed materials (grain or cement inside a silo)
- substances hazardous to health (chemicals, asbestos).

In these cases, a detailed risk assessment and safe system of work practice are required.

See page 15 of WorkSafe guidance for detailed information about management of high-risk activities.

How are changes managed?

Change Management Scope

All Council organisations must identify, assess and manage Health, Safety and Wellbeing (HSW) risk associated with proposed or actual changes. All applicable legislation must be complied with.

Change management applies to temporary and permanent changes ranging from complex and large-scale business changes e.g. business reorganisation or restructure; through to smaller changes e.g. plant modification, procedure, or specification update.

HSW risk is considered regarding the impact of a change, and during the period of change implementation.

Public safety must be fully considered in risk assessments and risk management at all stages of actual or proposed changes.

Change management applies to any change with the potential to impact safe, compliant and reliable operating activity of any processes, facilities or operating activities

Change Management Purpose

Management of Change is about identifying potential hazards that a change can introduce, then assessing the risks associated with those hazards, and systematically addressing them.

Any change to plant, process or people could potentially introduce additional risk. Changes can have unintended or unsuspected consequences.

A good or strong Management of Change process should result in:

- Change management that focuses on the expected benefits with properly considering the possible risks.
- A focus on all types of change e.g. organisational, materials and legal and regulatory requirements, and not just on technical change.
- Effective communication of changes to the people affected by the change.
- Updating or revising key documents such as operating procedures.
- Addressing all relevant aspects of a change, which is a factor in many incidents and informed business decisions.

Consider the following Auckland Council's principles of change when dealing with change:

Click on the image link to read more about the change principles.

Types of Change

There are many types of changes where HSW change management should be considered and applied for example:

- Processes
- Procedures
- Regulatory
- Organisational
- Technology
- Management systems
- Materials, e.g. chemicals, components, products in process
- Plant and equipment
- Vehicles and mobile equipment
- Assets - structure, componentry, maintenance, upgrading, replacement
- Practices

Compliance

Council's duties as a PCBU must be considered as part of the risk assessment for a change proposal.

If new duties are identified, or existing duties are affected by the proposed change then this will be documented and managed within the implementation plan. This includes overlapping duties with another PCBU which also must be managed.

Prior to change approval it must be established that legal and regulatory compliance will be maintained throughout the change process. Actions which are necessary to ensure legal and regulatory compliance during and after the change will be identified as controls in the documented risk management plan.

Stakeholders Participation, Engagement and Consultation

Key stakeholders must be identified and documented for each change proposal. Upstream and downstream stakeholders must be considered.

Workers who would be impacted by a proposed or planned change must be identified for the purposes of consultation and engagement.

Participation, engagement, and consultation minimum criteria must be complied with during each change process. Consideration will be given to key stakeholders, workers, union and health and safety representatives.

Process, Approval and Records

Any proposed change must be assessed to determine appropriate controls which minimise, so far as is as reasonably practicable, the risk of the change.

The initial assessment of the proposed change must consider the worst credible potential consequence that could happen if the change is not properly considered or implemented.

Local Management of Change processes must detail the level of review and sign off required for a proposed change, commensurate with its potential consequence. For example, a catastrophic or major consequence will require a more stringent level of controls, review and sign off than a potential moderate or low consequence.

A full risk assessment, including likelihood, will be used to test the effectiveness of the controls and determine whether further controls are necessary.

Each phase of HSW consideration for a change proposal or change implementation must be documented and retained for review and verification.

HSW risk management must be carried out and recorded by suitably knowledgeable and experienced people.

Where can I get further help and advice?

Contact the Corporate Health and Safety Team for help and advice, or the health and safety lead in your department.

Raise a case in Awhina

Phone the Corporate health and Safety Team via Awhina (09 354 2020)
Visit Corporate Health and Safety on Kotahi
Worksafe NZ: Identifying, assessing and managing work risks

Appendix 1: Guide to determining risk

Follow the three steps below to determine the risk rating and appropriate action.

1. Determine the likelihood and consequence of potential harm, using the table below:

Likelihood of potential harm:

What is the likelihood of the injury being caused by the hazard? Is it near-certain that it will happen or is it remote, taking into consideration the duration and frequency of exposure, and the adequacy of existing precautions?

Consequence of potential harm:

You need to consider the potential of the hazard you have identified; has it the potential to kill or cause major injury, or will it just cause minor cuts or bruising?

Risk Matrix Settings			
Likelihood		**Consequence**	
1 Rare	Highly unlikely, but may occur in exceptional circumstances	**1 Insignificant**	Injury requires first aid treatment or pain and discomfort requiring intervention e.g. workstation assessment.
2 Unlikely	Not expected, but some possibility it could occur at some time	**2 Minor**	Injury or illness requires medical treatment or other registered practitioner.
3 Possible	Might occur at some time – similar occurrences are known to have happened	**3 Moderate**	Injury or illness results in time lost from work for one day/shift or more. Notice is issued by regulator or Health and Safety Representative.
4 Likely	Will probably occur at some time in most circumstances	**4 Major**	Injury or illness results in 30 days lost time, or a permanent disability. Organisational breaches law resulting in prosecution and penalties.
5 Almost Certain	Expected to occur in most circumstances	**5 Extreme**	One or more fatalities. Considerable penalties and prosecutions, multiple law suits and jail terms.

2. Calculate Risk

Once you have determined the consequence and estimated the likelihood, calculate the risk using the risk matrix below. You will need to work through the process for untreated risk (without controls) and treated risk (with controls). For example, if you assess the likelihood to be 'possible' and the consequence as 'moderate,' the matrix will give you a 'moderate' (amber) risk rating.

Risk Matrix						
Consequences	5 Extreme	Moderate	High	High	Extreme	Extreme
	4 Major	Moderate	Moderate	High	High	Extreme
	3 Moderate	Low	Moderate	Moderate	High	High
	2 Minor	Low	Low	Moderate	Moderate	Moderate
	1 Insignificant	Low	Low	Low	Moderate	Moderate
		1 Rare	2 Unlikely	3 Possible	4 Likely	5 Almost Certain
		Likelihood				

The Hierarchy of controls **(Appendix 2)** will guide you through the process to eliminate and minimise controls to reduce the risk to an acceptable level.

3. Assess the risk rating, treatment and appropriate action

Once you have calculated the risk, you can determine the risk rating and tolerance using the table below - Risk Tolerance and Actions. The table will guide you on the level of approval and appropriate actions/mitigations to be taken dependent on the determined risk rating. For example, high or extreme risk requires immediate assessment and action.

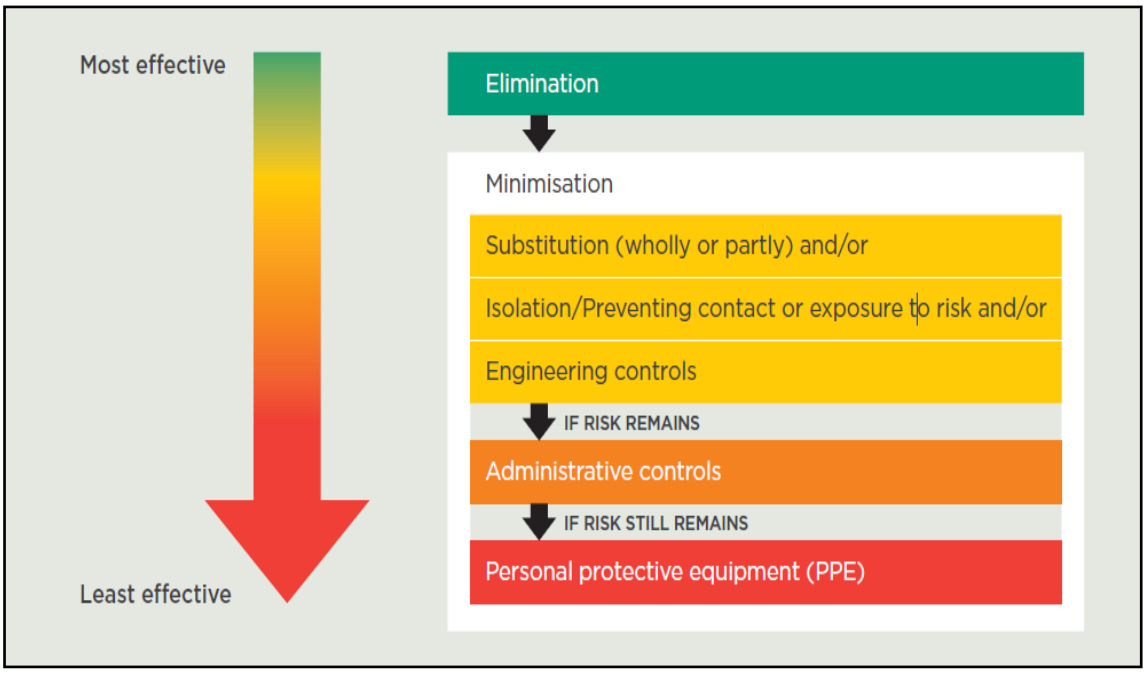
Risk Tolerance and Actions				
Risk Rating	**Risk Tolerance**	**Approval**	**Actions/Mitigations**	**Monitoring Review**
Low	**Tolerable risk with current controls measures**	Trained staff member	Proceed and monitor if there are no other potential control measures that may be practicable to reduce the risk further. Monitor to ensure the effectiveness taking corrective action where necessary.	Annually or if activity/action changes.
Moderate	**Risk can be tolerated in exceptional circumstances**	Team Leader	Review risk assessment and introduce further controls to reduce risk to acceptable level. Team Leader to sign off. Controls to be actively monitored to ensure effectiveness.	Quarterly or if activity/action changes.
High	**Undesirable risk**	Department Head	Stop task and reassess activity immediately. Control measures are in place to lower risk to acceptable level. Detailed risk assessment with further controls to be approved by Department Head. Controls to be actively monitored to ensure effectiveness.	Monthly or if activity/action changes.
Extreme	**Unacceptable risk**	ELT	Stop task and reassess activity immediately. Detailed risk assessment with further controls to be developed. Activity can only resume when **approved** by ELT under advice from the Corporate H&S Team. Control measures to be actively monitored to ensure effectiveness.	Monthly or if activity/action changes

Appendix 2: Hierarchy of Controls (preventative and protective measures)

Using the table below systematically, work through the Hierarchy of Controls:

If you are unable to eliminate the hazard then you must minimise the risks to health and safety so far as reasonably practicable. This is done by taking those (one or more) of the following actions that are the most appropriate and effective e.g. isolate with a barrier; administrative controls such as signage and training; personal protection equipment (PPE) such as safety shoes.

Hierarchy of Controls



Hierarchy of Controls examples

The examples in the table below will help guide you through the process to minimise the risk of harm. More than one control can be used to minimise the risks. For example: isolation (barrier), engineering controls (safety design), administration controls (procedures and training).

1. Elimination	Remove the hazard completely from the workplace or activity. Can the job be discontinued?
Minimise Controls	
2. Substitution	(Wholly or partly) replace the activity, process or substance with a safer alternative. Can a less hazardous method of work be adopted? Can the chemical or article used be substituted for something less harmful?
3 Isolation	Separate workers from the hazard to prevent contact or exposure e.g. barrier
4. Engineering Controls	Use safety in design features or mechanical aids to reduce the risk. Can the hazard be enclosed e.g. machine guards? Can the hazard be stopped using mechanical design e.g. automatic stop fail safe device.
5. Administration Controls	Implement safe work practices, procedures and policies e.g. rules, signage, and training. Can the time of exposure be reduced by job rotation? Can people be kept safely away from the hazard by distance?
6. Personal Protective Equipment **(PPE)**	Provide suitable clothing or equipment to cover and protect workers. For example, eye protection to protect against flying materials, steel toe capped boots to prevent foot injuries, dust mask for dust exposure *(PPE should only be considered as a last resort when all other controls have been considered and rejected)*

Additional support measures

Training	Are people sufficiently trained? This can be achieved through formal training, tool box talks, on the job training and specific health and safety training to deal with particular risks. Don't forget refresher training!
Information and Instruction	Are there written working procedures, written instructions and safe systems of work readily available to the workforce? Are the procedures working effectively? Do they need to be reviewed? How do you communicate to workers on health and safety issues? General risk assessments can be used to help develop your work instructions/safe systems of work.
Supervision	Is the activity adequately supervised? Is the level of supervision provided proportionate to the risk and competence of the workers?
Maintaining, inspecting and checking	Are workplaces, plant and equipment regularly inspected and maintained? Does the workforce carry out visual checks before using equipment? Are there any statutory tests that need to be carried out on your equipment, for example, lifting equipment and local exhaust ventilation plant.
Welfare Facilities	Are washing facilities and toilets available? Do people have access to a rest room or a facility to eat and drink at their place of work? Is drinking water readily available where people work?

Appendix 3: HST – 01 General Risk Assessment (example)

HST - 01 General Risk Assessment
Refer: HSSTD03 - Risk Assessment Procedures

Auckland Council
Te Kaunihera o Tāmaki Makaurau

Business Unit:	**Department:**
Workplace Location:	**Assessment Date:**
Assessment Team:	**Task or workplace/location being assessed?**
Assessment Lead sign off **Name:** **Date:**	**Review Date:**

Ref ID #	What are the hazards? Look for hazards in tasks or the workplace/location	Who might be harmed and how? Consider how the hazard may arise and how it will effect you and others	Untreated Risk Rating: Likelihood	Untreated Risk Rating: Consequence	Untreated Risk Rating: Risk Rating	CONTROLS IN PLACE What are you already doing? ELIMINATE (E) MINIMISE (M) Substitute (S) Isolate (I) Engineering Controls (EC) Administration Controls (AC) Personal Protective Equipment (PPE)	ADDITIONAL CONTROLS Do you need to do anything else to control the risk?	Treated Risk Rating: Likelihood	Treated Risk Rating: Consequence	Treated Risk Rating: Risk Rating	Action by who	Action by when	Monitoring review date
1	**Example:** Not observing road rules whilst driving a council vehicle - speeding	- Staff, visitors and members of the public - Motor vehicle accident resulting in injury	Possible	Extreme	High	- Detailed risk assessment - Following AC Fleet Policy - Compliance with NZ Road Rules e.g. no speeding - Adherence to AC Drug & Alcohol Policy - Fitness for driving motor vehicle e.g. fatigue - No use of mobile devices whilst driving vehicle - Driver assessment and training for high risk areas - Procurement - 5 star rating vehicle		Rare	Extreme	Moderate			
2	**Example:** Water Safety in AC pool - drowning	- Staff, visitors and members of the public - Drowning or serious injury	Unlikely	Extreme	High	- Water Safety eductation - Life guards - Signage at the pools - Pool safety procedures - Training records		Rare	Extreme	Moderate			