

A brief introduction to Safety Risk Management

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Note: This document is aimed at business owners/managers who want to understand Risk Management concepts, with the intent of being able to improve safety in their workplaces. It will also be useful for workers as well, so that they understand the concepts when a Risk Management plan is implemented

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**Disclaimer:** The information in this document is provided for general advice only, and doesn't replace advice specifically tailored for a particular business or activities. You shouldn't rely on the general information presented here as a substitute for specific advice. For the best advice, we suggest that you contact your state/territory workplace safety authority - see the appendix for details. Or you can get advice from a safety professional.

#### Introduction

Managing safety is one of those things that can become overwhelming. Everyone agrees is important, but how do you go about implementing something that is workable, yet doesn't mean a heap of paperwork? Isn't safety just 'common sense' anyway, so why bother getting into too much detail?

Because of these views, many tend to put implementing safety processes in the 'too hard' basket, yet it's not really that difficult. The key is to get started, and do one thing at a time. Implementing Risk Management processes is a good place to start.

Each state/territory has OHS/WHS¹ legislation and related regulations. While there may be some differences in the wording, the legislation states that 'the workplace must ensure the health and safety of workers' (or words to that effect). The main way this is done is to manage the risks associated with the activities done within that workplace (wherever that work is done, on-site or off-site).

Correctly managing the risks will create a safe system of work that can then be applied to all activities, and explained to existing and new staff. The system can be regularly reviewed, and updated as needed. Once you get started, it is easier to keep up with it and make sure it meets the needs of your organisation (like riding a bicycle!)

Understanding Risk Management is a good place to start<sup>2</sup>. First we need to understand what 'risk' is.

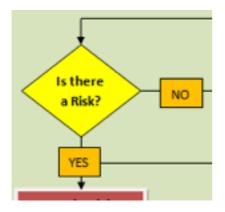
"... the workplace must ensure the health and safety of workers"

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<sup>&</sup>lt;sup>1</sup> OHS - Occupational Health & Safety. WHS - Workplace Health & Safety. The latter term is becoming more common, so we will use this in this resource.

<sup>&</sup>lt;sup>2</sup> The best place to start is with a commitment to have a safe system of work in place, and the willingness to resource the process.

#### Section 1 - What is 'Risk'



What is 'risk'? We need to know this so that we can manage it correctly. Dictionary definitions include 'the chance of injury, damage or loss'<sup>3</sup>, 'situations involving exposure to danger'<sup>4</sup> and 'the possibility of suffering harm or loss'<sup>5</sup>.

There are risks in many areas of life, we talk about financial risk - the risk of losing our

savings, environmental risk - the chance of damage to the world around us, and workplace safety risks - the possibility of injury or even death from actions at work.

This document focusses on workplace safety risks, and how to manage them. While the principles might apply to many other areas, in this guide we will stick with Risk Management in the safety context.

The definition of risk we will use is from the WorkSafe Victoria Horticulture Safety Guide; "... the likelihood that the hazard will lead to an incident. It considers the likelihood and the possible consequence." (We will discuss the term 'hazard' in section 3)

Now we understand what 'risk' is, lets look at how it can be managed.

"Risk: The likelihood that the hazard will lead to an incident."

<sup>&</sup>lt;sup>3</sup> Collins Australian Pocket Dictionary

<sup>&</sup>lt;sup>4</sup> http://www.oxforddictionaries.com/definition/english/risk

<sup>&</sup>lt;sup>5</sup> http://www.thefreedictionary.com/risk

# Section 2 - What is 'Risk Management'



'Management' is all about controlling things. 'Risk management' is therefore about controlling the risks.

It sounds technical, but in reality we manage risks every day. We look at the various risks to our safety, and we manage them. We do this

when we drive our cars, cross a road, cook a barbecue or cut up veggies for dinner.

We know what might happen, and we take actions to avoid causing ourselves an injury (or worse). Its accepted that there are risks in everything; when we are doing our own thing, we probably don't worry about it too much; perhaps because we seem to survive OK. Our risk management approach therefore is to control known risks to the best of our ability.

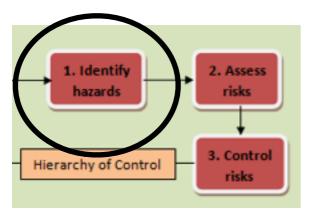
In the workplace, there are also many hazards. Instead of just accepting them, we need to make formal arrangements to keep everyone safe. 'Risk Management' is that process. The whole process is shown in the flowchart on the front cover and in the Appendix. Briefly, there are three main elements:

- 1. Hazard Identification
- 2. Risk Assessment, and
- 3. Risk Control

"Risk management is a systematic process of making a realistic evaluation of the true level of risks to your business"\*

<sup>\*</sup> Source: <a href="http://www.business.gov.au/BusinessTopics/Insurance/Pages/Riskmanagement.aspx">http://www.business.gov.au/BusinessTopics/Insurance/Pages/Riskmanagement.aspx</a> Accessed 28/2/2014

### **Section 3 - Hazard Identification**



The first step is to identify the hazards. In a workplace nearly everything can be a hazard, so it's easier if we identify the hazards associated with each workplace activity or process. This way the step isn't overwhelming.

We need to define what a hazard is.

The definition from the WorkSafe Victoria <u>Horticulture Safety Guide</u> is; 'Anything that has the potential to cause injury or ill health to a person.'

Hazards can be associated with an activity, or the processes used in that activity. As an example, think of cutting up the veggies for dinner; that is the activity, the process involved is using a sharp knife.

In this particular case, the hazard is related to the process. The main hazard is the knife used to cut up the veggies. A related hazard is the person using the knife and their skill level (an inexperienced person is more likely to injure themselves).

In the workplace, there may be numerous hazards associated with one activity or process. In this case, it can help to group them into different categories. Examples include:

- Plant/Equipment/Machinery hazards
- Psychological hazards (fatigue, bullying, stress, etc.)
- Manual Handling hazards (lifting, carrying, pulling, etc.)
- Chemical hazards

There are many ways hazards can be categorised; there is no set names of the categories so use what is best for your workplace. Grouping the hazards makes it easier to identify them, and makes the

'hazard identification' task easier; instead of trying to think of all the hazards at once, firstly think of the machinery hazards, then the manual handling hazards, and so on. Not every category will be relevant to every workplace activity or process.

The main thing is that the hazards are identified. To help, the workplace should have forms that prompt questions related to the possible hazards, and enable the recording of the hazards as they are identified. This document then becomes the 'hazard register' for that activity or process, and can be reviewed as required (generally at least yearly).

This process can be done by anyone; however its best if those involved in the activity or process are included, as it allows them some ownership of the hazard identification process. However, the drawback is that people can only discuss what they know; there may be other hazards that no one recognises, and these cannot be managed.

Options to deal with this include getting advice from outside the workplace on possible hazards. Sources of information include:

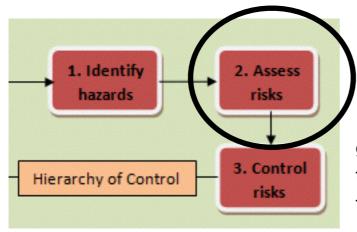
- The WorkSafe Victoria website (see the 'Your Industry' section),
- Other businesses in the same industry as yours, and
- Safety professionals/consultants

Once you have listed all the hazards, you can start to develop a plan to control the risks associated with the hazards. The next step is to find a way to assess the different levels of risk associated with each

hazard. This is the 'Risk Assessment'.

"Hazard: Anything that has the potential to cause injury or ill health to a person."

#### Section 4 - Risk Assessment



Each hazard will have a level of risk. Those with higher levels should be controlled first, as they present the greatest risk of injury or death to workplace staff. How do you tell which one is the highest?

The Risk Assessment process

is about ranking each hazard based on both the likelihood of its occurrence, and the severity of the consequences. Both need to be considered to get a true indicator, as something with a high rate of likelihood may have a very low severity (think of a paper cut - annoying, but not a risk to life)<sup>6</sup>. Both the likelihood and severity are given a score, and these scores are put through a matrix of sorts to be given a rating.

Likelihood	Score	Severity	Score
Very common	Α	Major	1
Common	В	Medium	2
Not common at all	С	Minor	3

The scores may be similar to the samples on the left; this example only has three levels, others may have up

to ten options (the more options, the wider the range of the score).

While a simple example, you can see that a hazard that has a 'very common' likelihood and 'major' severity will score differently than one with 'common' and 'minor'. The idea is that every hazard you looked at when creating the 'hazard register' will be given a score (such as A1, C2, etc.)

<sup>&</sup>lt;sup>6</sup> This is not to say paper cuts shouldn't be prevented if possible, but they would be low on the list of hazards to be dealt with!

Once the score for each has been determined, then the scores are put

through a matrix. A very simple example of the matrix is shown on the right:

	1	2	3
Α	HIGH	HIGH	MEDIUM
В	HIGH	MEDIUM	LOW
С	MEDIUM	LOW	LOW

Therefore a hazard with

a score of A1 will rank as 'High', whereas a hazard with a score of C3 will rank 'Low. In this case, those ranked 'High' should be controlled first, as they have the highest level of risk.

There are some issues with the risk assessment process. One is that you may end up with every hazard ranking 'High', and so still not know which to tackle first. This is one reason why some models have up to ten different levels to score; this creates a broader range of outcomes.

The other issue is that the scoring depends on the judgement of the person doing the process. Its up to them to decide whether the likelihood is 'very common' or 'common'.

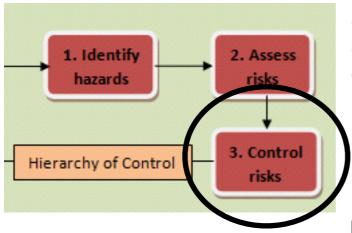
However, this is no reason not to do risk assessments, and the more that are done, the better you will get at the process (again, like riding a bike!)

For ideas on risk assessment scoring and ranking, it's a good idea to check the website of your local workplace safety authority (see Appendix)

"Risk assessment: Ranking the risk level based on likelihood of occurrence and severity of the consequences."

Once you know which one to tackle first, you can move on to Risk Control.

#### Section 5 - Risk Control



Risk Control is the exciting bit, as this is where things get sorted. Its also the most complex of the three Risk Management elements, as there are many variables.

The aim is to remove the risk where practical, or reduce the level of risk to acceptable

levels. Obviously, removing the risk entirely is the preferred option, but we need to recognise that this isn't always possible.

To help us work this out, we can use what is commonly referred to as the 'Hierarchy of Control'. This is a list of control measures that can be applied to each hazard. As the name suggests, there is a hierarchy to the list; at the top is the highest level of protection and most reliable method, as you go down through the hierarchy, the level decreases and so does the reliability.

There are variations to the names and order of the hierarchy, but the following are common:

- 1. Elimination removing the risk entirely
- 2. Substitution changing it for one with less risk
- 3. Engineering making something that lessens the risk
- 4. Isolation either isolating people from the risk, or vice versa
- 5. Administrative putting in written processes, providing training,
- 6. PPE Personal Protective Equipment (gloves, hard hats, safety glasses, etc)<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> Sometimes PPC - Personal Protective Clothing, or PPCE - Personal Protective Clothing & Equipment

Some lists will only contain 5; they put engineering and isolation together as generally something needs to be made to provide the isolation. Others will use different titles.

The hierarchy is designed so that you start at the top, and ask; Can the risk be eliminated? If yes, good. If not, move on to the next one down; Can the risk be substituted? And so on.

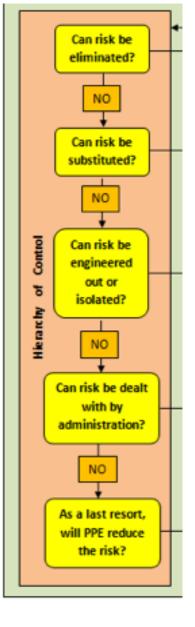
It is tempting to quickly move through the list, saying that the risk can't be eliminated, etc., and just ask workers to wear safety equipment. This is sometimes seen as a quick and cheap way to address safety issues. However it doesn't work. If you are committed to ensuring a safe workplace, then you need to be serious about using the most practical control measure.

Advice on what risk controls can be used are available from a number of sources, including the workplace safety authorities (see Appendix), and similar organisations to yours. Often someone else has already thought of a good way to reduce the level of risk for a hazard you have.

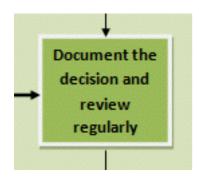
It's recognised that this needs to be a practical process. There may be risk management options

that might work given enough time and money. There may be a case for a lower level of risk control while arrangements are made for a higher level option. You will need to show why this is the case. In general, you will need to show that you are committed and proactive in providing a safe workplace.

This is why documenting the Risk Management process is so important.



## **Section 6 - Documentation**



Documenting the processes used has a number of advantages. You can use it to show that you are serious about ensuring a safe workplace. The main benefit is that you can use the documents to build on and refine the processes you have started.

#### The documentation will include:

- The hazard register for each workplace activity/process. Start with what you think might be the one with the highest levels of risk. Once you have started, use the hazard register as a template, and go on to another workplace activity/process.
- The risk assessment results. While the scoring and ranking matrices
  won't change, you will need for record the scores and rankings for the
  hazards associated with the workplace activity/process you started
  with. The matrices can be used again for the next ones.
- The risk control results. This should include information on what options where chosen, and also why higher levels were not (where applicable). The document might also show who is responsible for the outcomes decided, and when these will be implemented.

Examples of forms and templates that can be used are often available from your workplace safety authority (see Appendix); many of these can be adjusted to suit your organisation.

All of the documentation should be kept in a central location, easily accessed by those who need it. Date each document so that it can be seen that they are current. Once in place, they should be regularly reviewed to make sure they are still relevant. Having it all documented makes this process much easier to do and complete.

Section 7 - Where to next?

This information is a brief overview of the Risk Management processes.

It doesn't include all aspects, and is intended as a quick introduction to

the topic of safety Risk Management. There is much more information

available; we suggest that you check with your workplace safety

authority for more information, or talk to a safety professional.

Examples of other areas that would be included in a safe system of

work include:

Policy and procedures

Disaster planning

First aid

Induction and training

There are many others. Once you get started, you will find out areas to

work on. Don't let this overwhelm you; deal with these one at a time.

To ensure a safe workplace, you will need to have a safe system of work

in place. It starts with a commitment to safety. The Risk Management

processes are integral to this, but not the only part. Getting started with

Risk Management will help you work towards a safety system of work

that is relevant, and helps ensure that you have provided a safe

workplace.

If you would like to discuss how Risk Management processes can help

you work towards ensuring a safe workplace, then contact the author:

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# **Appendix**

# Workplace safety authority bodies:

Federal Safe Work Australia

Website: www.safeworkaustralia.gov.au

ACT WorkSafe ACT

Website: www.worksafe.act.gov.au

NSW WorkCover NSW

Website: www.workcover.nsw.gov.au

NT NT WorkSafe

Website: www.worksafe.nt.gov.au

QLD Workplace Health and Safety Queensland

Website: www.worksafe.gld.gov.au

SA SafeWork SA

Website: www.safework.sa.gov.au

TAS Workplace Standards Tasmania

Website: www.wst.tas.gov.au

VIC WorkSafe Victoria

Website: www.worksafe.vic.gov.au

WA WorkSafe WA

Website: www.worksafe.wa.gov.au

