

RIIRIS402E

Carry Out the Risk Management Process



LEARNER GUIDE

RIIRIS402E Carry Out the Risk Management Process

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This Book Contains:

Course Information.

□ Review Questions.

□ Practical Assessment overview and instructions.

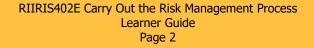




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1.1 Introduction

This course is based on the Unit of Competency **RIIRIS402E Carry Out the Risk Management Process** and is aimed at personnel in supervisory roles in the resources and infrastructure industries.

You will learn about:

- Planning and preparing for risk management.
- Identifying and developing the objectives of the risk assessment.
- Identifying hazards.
- Assessing risks.
- Identifying unacceptable risk and potential actions to deal with the risk.
- Deciding on, implementing or facilitating a course of action.
- Reviewing the implementation of action.
- Auditing the risk management process.
- Completing records and reports in relation to the risk management process.



1.1.1 Role of the Supervisor in Risk Management Processes

The role of a supervisor in the risk management process is to make sure:







- All risk management activities meet site and safety requirements.
- All activities are effective in identifying and treating risks and hazards.
- All personnel involved understand what they need to do and have the guidance to complete their activities properly.
- All information gathered by personnel is correct and relevant.
- Risks are assessed properly and treated in accordance with organisational requirements.
- Expert advice is sourced when information is unclear or potentially inaccurate.
- All resources are organised or gathered properly for effective hazard treatment.
- Approved hazards controls are implemented properly.
- Personnel are coached through the implementation of hazard controls.
- Situations are reviewed properly and hazards controls are still effective.
- The process is audited and quality outcomes are being achieved.
- All documentation and records relating to the process are completed accurately.



1.2 Access Risk Management Documentation and Procedures

Check risk management documents, policies and procedures before you start the risk management process to:



- a) Make sure your work is compliant.
- **b)** Identify any different rules, policies and procedures on different sites.
- c) Find out what forms or records need to be completed before, during and after the risk management process.

1.2.1 Legal Requirements and Guidelines for Risk Management

Worksites and organisations need to meet a range of requirements whenever undertaking risk management processes including:

Legislation and Acts (Laws)	These are legal requirements that must be followed. Failure to meet these requirements can lead to prosecution.
Regulations	These are explanations of what the laws mean. These may be updated more regularly than the laws themselves so it is important to check them regularly. Regulations can exist at both state and federal levels.
Codes of Practice	These are guidelines for applying the requirements of laws and regulations based on industry standards.
Australian Standards	These provide details and guidelines around the minimum requirements for a job, product or hazard control. They set out specifications and procedures designed to ensure products, services and systems are safe, reliable and consistently perform the way they were intended to. The standard covering risk management is: AS/NZS ISO 31000:2009, Risk Management – Principles and Guidelines.

Some states use OHS laws, and other states use WHS laws. They both talk about the same thing, but use different words or names for people. If you have any questions about safety rules you should talk to your boss or supervisor.



1.2.2 Sources of Risk Management Information

When planning out the process for risk management you should refer to:

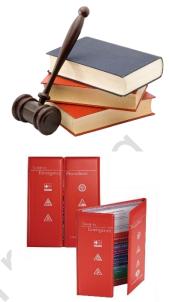
- Applicable commonwealth, state or territory legislation.
- Codes of practice relating to the Industry, dangerous and hazardous goods, environmental protection and safety and health.
- Worksite safety management systems.
- Manufacturer's documentation and handbooks.
- Existing or similar workplace operating procedures and policies.
- Safety data sheets.
- Emergency procedures.
- Safety alerts.

Any risk management processes that you use need to meet the requirements of these sources to ensure work activities are compliant.

Review Questions

1.

Why do you need to check risk management documents, policies and procedures before starting the risk management processes?





1.3 What is Risk Management?



A **RISK** is the chance of a hazard hurting you or somebody else or causing some damage.

A **HAZARD** is the thing or situation that causes injury, harm or damage.

RISK MANAGEMENT is the process of eliminating or controlling hazards to reduce the risks that people and equipment are exposed to at work.

The risk management process is made up of 3 main stages:



Ris	k Management Stage	Action	
1.	Hazard Identification	This is where you identify all the possible events and situations in the workplace where people may be exposed to injury, illness or disease.	
2.	Risk Assessment	 Which includes: a) Risk Analysis – You determine the likelihood of a hazard causing harm and the consequence or outcome of that hazard causing harm. This gives you a risk level. b) Risk Evaluation – Using the risk level you have worked out you can determine if the risk is unacceptable and if action needs to be taken, as well as what kind of action to take. 	
3.	Hazard Control	This is where you choose one or more options for controlling hazards in an effort to reduce the risks associated with them.	

Monitoring and review through consultation and communication with others should occur at each stage of the risk management process.



1.3.1 When Does Risk Management Need to Happen?

Risk management processes need to be used in response to incidents, accidents or near misses, but also need to be applied for a range of different reasons including:

Situations where changes to the environment occur:



- The worksite is constantly changing because of construction, demolition or the movement of plant, vehicles, equipment, stock or materials.
- The public can easily interact with the work site.
- Supervision is limited.
- There is a high turnover of personnel who required training and orientation to complete their work safely.

Situations where the work or the work area is dangerous:

- Personnel use or work near vehicles, equipment or machinery.
- Personnel need to use manual handling techniques to complete their work.
- Work is completed at heights, in confined spaces or on construction or mine sites.
- Work requires personnel to use chemicals, work alone, or use explosives, tools or equipment.
- Tasks and handling of materials requires specific training and precautions to be carried out safely.
- Work is completed in remote areas.
- Licensing, permits or special qualifications are required to carry out work.
- The work creates a harmful bi-product (gas, contaminant, waste).
- Waste and contaminants are handled or disposed of.
- Communications between personnel is crucial for the work to be done safely.









1.3.2 Consultation and Communication

Consultation and communication with others is an essential part of Risk Management.



It should take place at all stages of the process.

Risk or hazard identification and coming up with ways of controlling or treating them involves talking to the people with knowledge of the situation, or who are directly affected by any action you take.

An important part of the Risk Management process is to demonstrate teamwork and consult with:

- Supervisors.
- All team members.
- Employers.
- The relevant health and safety representatives.
- Anybody else effected by the action you intend to take.

This will help to ensure that risks and hazards are not only effectively identified but that the people who are controlling and treating them are clear about their role and responsibilities in the Risk Management process.

Consultation and communication can have the following significant benefits:

 Contribution to Risk or Hazard Identification – The work team has intimate knowledge of the work environment and will most likely be the first to identify hazards.
 Consultation should lead to team members feeling comfortable about

reporting hazards without fear of intimidation or condemnation as a "whistle blower".

- Development or Improvement of Solutions Having firsthand experience with equipment and processes often leads to efficient and innovative solutions and/or improvements to hazard control.
- Team Commitment to Risk Control When the team members feel they are being consulted and listened to, they become stakeholders in the process and adopt ownership. This encourages cooperation and responsibility for actions.
- Ongoing Evaluation The work team can provide valuable feedback on the effectiveness of the Risk Management system, with insights on how things are operating "at the coalface".

Risk management should be a team effort and it is important that everybody knows what they need to do and how or if they need to change their work processes to suit.







1.3.3 Plan Out the Risk Management Process

You will need to plan out risk management to make sure it meets all of the legal requirements as well as making sure nothing important is overlooked during the process.

The following breakdown goes into more detail about what happens at each of the 3 main stages of the risk management process:

Stage of Risk Management Process	Tasks
Stage 1 Hazard Identification	 a) Identifying hazards – You need to check the work environment as well as the tasks being done. This includes looking at how tasks are completed as well. During your inspection you need to make a note of any hazards that you identify. b) Checking instructions, procedures and other documentation for guidelines on how to control any hazards you have identified – You need to make sure you are reading the latest information and take steps to apply any safety requirements listed in the instructions to manage hazards. You may need to look at work method statements (WMS), manufacturer's instructions, safety data sheets (SDS) or site policies and procedures.
Stage 2 Risk Assessment	 a) Identifying and assessing hazards that are not covered in instructions, policies or procedures – You will need to look closely at these hazards and work out how bad they are. You can do this using a process called risk assessment where you work out the level of the risk by looking at the likelihood and consequence of the hazard occurring. b) Determining if hazards pose an unacceptable risk – You will need to look at site or organisational policies and documentation to work out if the risk associated with a hazard are classified as unacceptable. Unacceptable risks need to be managed before work is allowed to continue. The way you manage these hazards will depend on a range of factors.
Stage 3 Hazard Control	 a) Identifying hazard controls for more serious situations – You will need to look at all of the possible options for managing hazards and lowering risk levels for any remaining hazards. This will include looking at resources required to carry out any controls and working out if they are a practical and realistic solution to the problem. b) Determining the best options for controlling hazards – You will need to work out the best course of action and prepare a detailed plan outlining exactly what you want to do. This plan will need to be approved before you can take any further action. c) Implementing approved hazard controls – Once you have approval you can implement the hazard controls and re-evaluate the hazards and risks. d) Monitoring the situation – After hazard controls have been implemented effectively you need to carry out monitoring and follow-up of the situation to ensure that the controls are effective.



Different personnel will be responsible for completing different stages of the process. As you design the process that you will use it is important that you think about who will be working on each step and ensuring that you can provide them with the support and supervision that they need to do the job properly. If any part of the process is inaccurate it can have a big impact on the decisions that are made later on.



1.3.4 Identifying Risk Assessment Parameters

Parameters in risk assessment are the boundaries or scope that the process is looking at.

Risk assessment can be applied specifically to particular system components, practices, processes and procedures, or can be applied holistically to the whole organisation's operations.

These parameters will vary depending upon the organisation, but may include:

Objectives.	
Boundaries.	\diamond
Hazard types.	
Consequence types.	
Acceptable risk.	
Team processes.	
Location parameters.	
Timeframes.	

1.3.4.1 Objectives



Objectives can include targets, key performance indicators (KPIs), and the focus of the assessment.

1.3.4.2 Boundaries

What are the limits of when, where and how the Risk Management is applied?

Boundaries may also include limits to the hazard or risk itself. E.g. a particular risk may only exist if ambient temperature rises too high.



1.3.4.3 Hazard Types



Identifying the hazard is often not enough – the type of hazard is needed. E.g. the hazard may be a broken machine, but is the risk to process flow or a danger to personnel? Does it risk contamination or cuts?



1.3.4.4 Consequence Types

These define the consequence level and extent and will directly affect the acceptable risk levels for the organisation, task or department.

Consequences may be defined according to how they impact the organisation, or may be evaluated by costs.



1.3.4.5 Acceptable Risk

An acceptable level of risk will be determined by the organisation.

When determining acceptable risk levels some of the questions that should be asked could include:

- Is the business going to be held liable if an incident occurs?
- Will individual managers and other personnel be held accountable in a court for the consequences of the incident?
- Would the impact on the business be severe, if an incident occurred?
- Would the incident have a long-term impact on:
 - The business?
 - The environment?
 - The public perception of the business?
 - The people involved?
- Could the incident harm:
 - Business reputation?
 - Business sales?
 - Product reliability?
- How would the incident impact the profitability of the business?
- Would this impact be too extreme for the shareholders to accept?

Acceptable risk is something that must be determined by the organisation as it is virtually impossible to have a zero risk situation.

1.3.4.6 Team Processes

When looking for hazards or risks, it is important to remember that this can include people.

You may need to consider factors such as:

- How teams work.
- Do they run a process properly?
- Personal interaction.
- Relationship to the rest of the organisation.





1.3.4.7 Location Parameters



These could include time, venue or other site-specific parameters that need to be accounted for during the development of the Risk Management decisions.

An example might be the effect of Head Office and Regional relationships.

1.3.4.8 Timeframes

Assessing risk for timeframes has a number of facets, including:

- Reality level of timeframes.
- Consequence if deadlines or target times are not met.
- Effects of time pressure on personnel.
- Equipment reliability if downtime is eroded (maintenance etc.).



1.3.5 Methods to Determine the Risk Assessment Scope or Parameters

Risk assessment scoping depends on the focus of the risk assessment. Risk assessment can be done on any business department or any business process.

Commonly risk assessments are done for the following reasons:

Financial	These can be useful when deciding on a course of action.
Safety	Health and safety issues are what most people view as risk assessments.
Quality	Quality assessments look for issues with the work, product, service or other factors that may impact production or services.
Legislative	Used to identify trends or developments in the legislative or regulatory boundaries within which the organisation is operating.
Manpower	These look at risks associated with employee/worker acquisition and retention.



Each focus of the risk assessment may require a different definition of limits on the scope of the assessment.

Defining the scope of the assessment will enable you to focus on the specifics required to complete the assessment and avoid having the process drift off into an everwidening look at processes.

Questions to ask might be:

- What areas may the risk affect?
 - Environmental.
 - Operational.
 - Sustainability.
 - Compliance.
 - Strategic.
 - Human.
 - Ethical.
 - Reputation.
 - Technological.
 - Capital.
 - Financial.
- What hazard or risk is being addressed?
- Which operational areas are involved in the processes that are a risk?
- What timelines are there for reducing or removing the risk?

Once the areas of impact are known, the risk parameters can be applied to define the scope of the assessment.

Management is more likely to get behind Risk Management when it is tightly scoped and strictly defined.









1.3.5.1 Conducting Effective Scoping Sessions

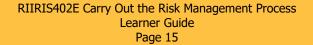
Different people see hazards in different ways. It is important to include as many relevant views as possible in scoping sessions.



For each work area scoping documentation may need to address:

- Objectives.
- Targets.
- Goals.
- Boundaries.

To avoid problems such as meetings being hijacked by one issue or idea, it is important to keep sessions as open as possible to allow for the greatest array of views and needs.







When facilitating a scoping session, you should:

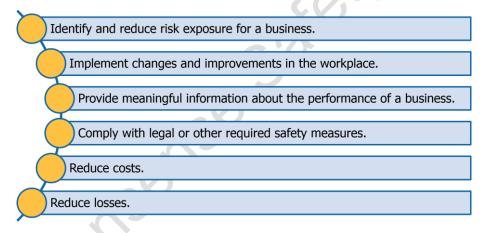
- Nominate a secretary to document comments and proceedings.
- Encourage open minds and willingness to listen to others.
- Ensure all suggestions are listened to and understood.
- Keep the discussion on track and achieving the goals.
- Note complaints or non-topic points and move on.
- Nominate specific people for implementation.
- Summarise decisions or conclusions at the end.

Any decisions should be fully explained, with the evidence that was used to determine an outcome documented as well. By having a well-documented scoping session, you are able to justify, as required, the actions taken, or not taken.

Documenting reasons for not taking action is as important as reasons why an action was taken.

1.3.6 Access Relevant Data and Information for the Risk Assessment

The risk assessment can have a number of roles and purposes, including:



Data that is useful for risk assessment processes could be stored in places such as:

- Employee/worker records.
- Training records and data.
- Risk registers.
- Hazard registers.
- Company history.
- Industry bulletins.
- Safety alerts.
- Site policies and procedures.



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You may also find useful information from statistics such as:

- Financial or budgetary analyses.
- Injury rates.
- Lost time either in terms of injuries or down time.
- Quality Assurance issues for services, works or products.
- Legal or regulatory breaches.
- Staff sick leave.
- Customer loss.



Analysing the figures and tracking trends in the information can:



- Provide different perspective on functional areas.
- Give advance warning of issues in processes.
- Identify potential trouble spots.
- Identify where any risks are developing.
- Identify stressors in the workplace.

How you analyse, assess and interpret the data may change depending on the situation and the type of data. This is because data can be manipulated and may often give a different result if it is clustered or applied in different ways.

It is essential that you attempt to minimise the data issues by:

- Defining requirements clearly.
- Ensuring the data is `clean.'
- Setting up clear processes for extracting meaning from raw data.
- Ensuring there are no 'expected' results biasing the process.
- Use of statistical analysis is relevant and properly applied.
- Ensuring the analysis will actually provide what you need.







2.	What is meant by the term 'Risk Management'?	
		0
3.	What are 4 significant benefits of consultation and communication in the risk management process?	
1.	60	
2.	50	
3.	SCI	
4.	nor	



4.	List 5 different risk assessment parameters.	
1.		
2.		
3.	•	0
4.		
5.		

5.	Why is it important to include as many relevant views as possible in scoping sessions?	
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6.	List 4 places where you might find data that is useful for risk assessment processes.	
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2.1 Identify Hazards

Hazards may involve:

- People human error is a fact of life.
- The work environment.
- Equipment and materials.
- Methods, plans and work systems.
- Process failures.
- Cascading causes hazard is triggered by outside process.



When identifying hazards, knowing the history (site and industry precedents) will help you to identify site-specific hazards that may not usually be considered.

Things that are done all the time often create "tunnel vision" where people get so focused on the task at hand, they forget about the big picture.

Hazards may have health impacts in the:

<u>``</u>
Long term.
Medium term.
Short term.
More than one of these areas.



Long Term Impact

Hazards with a long-term impact are more difficult to identify, as consequences may not show up immediately.

An example is blue asbestos and the fatal effects in later life, often after the people have long since left the industry.

Medium Term Impact

Hazards with medium term consequences can be those that cause damage through exposure over time.

Working with radiation is an example – even with safety controls, the accumulated increased dosage means, after a certain level, the person can no longer work in the area at all.

Working with radiation is also an example of a combination medium and long-term risk. While the medium term consequences may be deemed mitigated by controls and limits on exposure, it is possible that later life cancers or other illness may be caused even by exposure kept within the current standards.







Short Term Impact

Short-term hazards are normally fairly easy to identify – human systems are built to look for immediate dangers and to project consequences in the short term.

A short-term risk such as an impact hazard may develop into a long-term risk due to, for example, spinal degeneration caused by the initial injury.

Any risk may evolve into long-term consequence due to trauma or psychological factors.

2.1.1 Common Hazards in Resource and Infrastructure Workplaces

Hazard Type	Examples	
Environmental Hazards	 Spills to water – stormwater. Spills to land – contamination. Wasteful resource use (e.g. water materials). Wasteful electricity use or the production of greenhouse gas. Waste generation. Spreading of weeds and pests. Potential for fire. Release of emissions to air. Noise or vibrations (offsite impacts). Disturbance to plants or animals. Removal of vegetation. Disturb cultural heritage sites. Disposal of wastes from site. 	 Transport of wastes from site. Use of pesticides or insecticides. Poor lighting, ventilation, air quality. Excessively loud and prolonged noise or vibration. Heat and cold. Radiation. Excavations. Floors. Stairs. Work platforms. Ladders. Falling objects. Slippery surfaces.
Mechanical or Electrical Hazards	 Electricity. Machinery. Plant. Pressure vessels. Dangerous goods. 	 Forklifts, cranes and hoists. Driving. Manual handling. Working at heights. Confined spaces.
Chemical Hazards	 Chemical substances, e.g. acids or poisons, others that could lead to fire or explosion. Cleaning agents. 	 Dusts and fumes from various processes such as welding. Occupational gas releases. Inhalation of chemicals.
Biological Hazards	 Bacteria. Viruses. Mould, mildew. 	 Insects, vermin, animals. Asbestos. Other microbiological organisms.
Psychosocial Hazards	 Events. Cultural heritage and standards. Impact on the community. Systems of work. Work pressure. Human factors i.e. competency, training, fitness, etc. 	 Other circumstances that have the potential to lead to psychological and associated illness, e.g. work-related stress, bullying, workplace violence and work-related fatigue.



1.	List 5 types of environmental hazards.	
1.		
2.		0
3.		
4.		
5.	Sale	
2.	What is one example of a hazard that can produce long term health impacts?	
	nons	
C	nnol	



2.2 Explain the Hazard Identification Process to Personnel

In order to successfully identify hazards in the workplace it is important that all personnel are aware of:

What a hazard is.
7
How to spot a hazard.
What they should do when they find a hazard.

In any workplace, a strong safety focus will ensure that hazard identification is part of everyone's role.

Make sure that all personnel under your management are aware of their responsibilities when it comes to hazard identification and that a simple and effective process for reporting them is in place. This could include verbal reporting or a more formal documented recording of details.

3.	What 3 things do all personnel need to be aware of in order to successfully identify hazards?	
1.	Sat	
2.	S	
3.	SOL	
0		



2.3 Inspect the Work Area to Identify Hazards

All worksites have hazards, specific areas, jobs, equipment or materials that have risks associated with them. In order to effectively manage them, the work area and work conditions need to be inspected and analysed on a regular basis.

Make a note of all the possible events and situations in the workplace where people may be exposed to injury, illness or disease.

Inspecting and analysing your work area conditions regularly to identify potential hazards is crucial in maintaining a safe workplace.

To identify possible risks and hazards, take a walk around the work area and check:

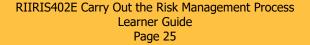
- **Up High** Obstructions, power lines, trees, scaffolding, cranes.
- At Eye Level Other workers, equipment, machines, hazardous materials, obstructions.
- Down Low Surface condition, spills, debris, underground services, and weight-bearing ability.



Worksite hazards can also be identified by:

- Analysing a situation or the way a job is carried out by other workers.
- Looking at the equipment being used.
- Checking records of injuries and incidents.
- Checking safety tags.
- Reading Safety Data Sheets (SDS).
- Talking to other workers.

4.	List 3 ways that worksite hazards can be identified by.	
1.	no.	
2.		
3.		







2.4 Check for Changes to Work Practices, Systems or Technology



Hazards can arise from a process being incorrectly completed, steps in a process being skipped or the wrong process being used to complete tasks. It may be necessary to analyse a process to identify these hazards.

While completing a process analysis, you need to break every process down into the component steps or parts. This allows for detailed hazard analysis of each step and therefore an overall hazard identification.

Breaking processes into each individual step requires patience and an eye for detail.

Before starting a process analysis, you will need to research any:

- Procedures that are associated with the process.
- Safety standards, certifications or licensing that should be held.
- Documentation applicable to the process.

It is important, once the breakdown analysis has been done, to look into the overall process to see where the relationship of the parts may produce risk.



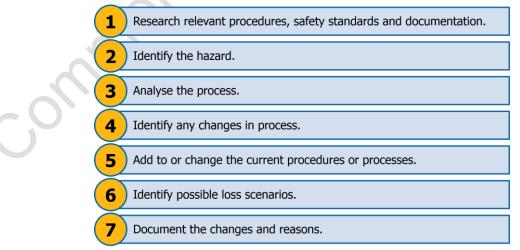
An example might be looking at a refuelling process – each part checks out as safe, but the overall process turns out to be normally conducted next to the coal-fired boiler.

2.4.1 Analysing a Process

It is important to be sure that any proposed changes to process or procedures will not have an unacceptable impact on the organisation.

Once the Process Analysis has been run and options identified to manage risk, the options must be analysed to look for possible losses incurred in implementing them.

The process analysis steps to be followed are:



IMPORTANT! Make sure you follow any and all relevant safety precautions associated with the site; the fact you are not working the shift does not excuse you from appropriate Personal Protective Equipment (PPE) or other equipment normally in use.



Analysing the process is a combination of watching, taking notes and questioning the operators or other people involved in the process.

You need to be aware of the proper procedures and activities as per Standard Operating Procedures (SOP's) or other organisational documentation so you can immediately identify where things may be going wrong.

During the analysis phase you are looking for anything that may be a hazard or risk. Because no task is done in only one step, the hazard or risk could be in any part of the process.

You are looking for any part of the process that is less safe than is acceptable.





Communicating during the analysis phase is essential. Ask questions, ask for comments, ask what the operator considers to be a risk or hazard and how they manage or mitigate the hazard.

Sometimes an operator will use equipment or complete a task differently to the procedure.

Use open questions to ask why; operators will sometimes find an easier or safer way of doing things. You may discover a better way of completing the tasks.

If so, the procedural documentation should change. Regular reviews, changes and updates of the procedures are a good way of keeping these documents current.

2.4.2 Update Processes and Procedures

Processes change with time and technology. Variations in processes can be beneficial to safety and Risk Management or they may be dangerous.

It is necessary for variations to the work processes to be monitored, documented and defined as soon as possible after the changes or variations occur.

Changes could come from:

- Variations in work practices due to:
 - Management changes.
 - Industry or legislative requirements and changes.
 - Organisational direction changes.
- Changes to work systems.
- Seasonal variations affecting:
 - Working conditions.
 - Working environment.
 - Workflows.
 - Working hours.
- Technological changes.
- Work methodologies or procedural changes. Can occur due to legislative or organisational changes.
- Contingencies and emergencies.







Productivity can be affected when processes change. If the variation in the process is planned and orderly, this change in productivity should be accounted for.

If the variation in the process is unplanned, a change in productivity for a process could be an indicator of the changes. Any large changes in productivity should be investigated to determine the risks associated with the process.

Checking current processes and modifying risk assessments to reflect any changes is a task that should be undertaken on a regular basis in addition to when you are aware of changes in the processes.

Ensure you do updates for:

- Induction documentation.
- Onsite procedural documentation.
- Task specific documentation.
- Intranets.
- Organisational documentation.



Once the changes have been made, publish the documents and ensure the users of the documents are aware of the changes that have been made. This could include undertaking training to ensure all people are aware of the changes and variations that have been made.

2.4.3 Loss Scenarios

Loss scenarios are any situation where there is a significant impact on the business either:

Leg	ally.
-	
	Financially.
T	
	Reputation and business standing.
	Loss of life or significant injury.
Env	rironmental impacts.



When analysing a process and identifying procedure variations or process additions it is important to look at how those changes will affect the organisation.

Fixing a hazard or reducing a risk may involve a loss scenario for the company, perhaps through downtime, replacement of equipment or because of retraining needs.

This must be documented, along with the original Risk Assessment and Process Analysis so Management can have access to all the potential costs and other factors.



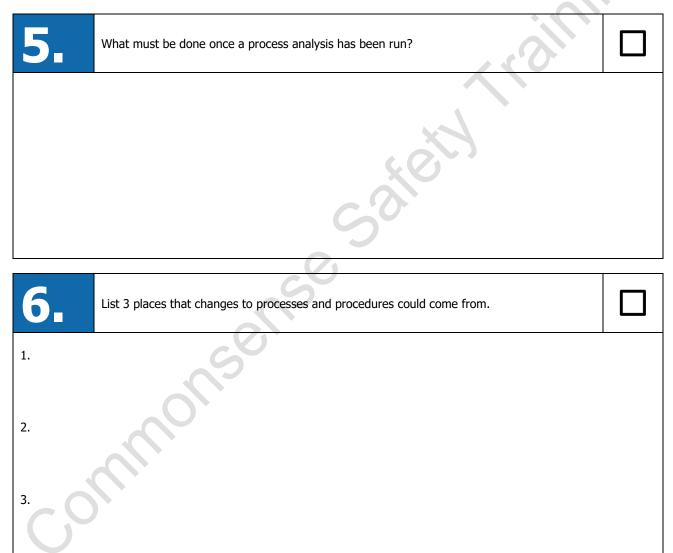
2.4.3.1 Documenting Loss Scenarios

Once the analysis phase is done, you need to document all the loss scenarios so the organisation can make choices.

The people making decisions to invest, alter or remove the risk area may not be familiar with the processes or procedures causing the risk.

By documenting all the scenarios, you allow costs to be associated with each, as well as show actual causes and failures. This means a more accurate and effective response can be made.









2.5 Assess the Risks Associated with Identified Hazards

Risk Assessment is the next stage of the risk management process and involves finding the risk level associated with a hazard, then working out what action you need to take.



A **Risk analysis** helps you to work out the 'risk level'. You can work out the risk level by looking at 2 factors:

Risk Level	Factors
Likelihood	 What is the chance of the event occurring? Has the event happened before? Is it likely to happen again?
Consequence	 What would be the outcome of the event occurring? How severe would the outcome be?

To work out what you should do after getting the risk level you carry out **'risk evaluation'**. This is where you compare the risk level you have identified with workplace rules, policies and procedures to find out if it is an unacceptable level of risk, and what you need to do about it.



2.5.1 Determine the Likelihood of a Hazard Causing Harm



Likelihood is 'the chance of something happening'.

Typical questions to ask to determine likelihood are:

- How often does a hazard have the potential to cause harm? A risk may exist all of the time or it may only exist intermittently.
- How effective are current controls in reducing risk?
- Can risks become more likely to cause harm because of the working environment (e.g. poor lighting, exposure to weather)?
- How long might people be exposed to the harm? The longer someone is exposed to a risk, the greater the likelihood that harm may result.
- Could the way people act and behave affect the likelihood of a hazard causing harm (e.g. fatigue or stress)?
- Do the differences between individuals in the workplace make it more likely for harm to occur (e.g. new workers, older workers)?

Likelihood can be rated as one of the following:

	5. Almost Certain.	
	4. Likely.	
	3. Possible.	
	2. Unlikely.	
$\langle \langle \langle \langle \rangle \rangle$	1. Rare (Highly Unlikely).	
	▼	

2.5.2 Determine the Consequence of a Hazard Causing Harm

The **consequence** is the level of harm resulting from a hazard. The consequence level will influence decisions about how much effort is needed to control the risks.

A hazard may have the potential to cause a range of different types of harm, ranging from minor discomfort to a serious disabling illness or injury, or death.





You need to consider the following factors when evaluating and determining the consequence if the event should occur:

- What harm can occur? Could the hazard cause death, serious injuries, illness or less serious harm, such as minor injuries requiring first aid?
- What factors could influence the severity of an injury? For example, the distance someone might fall or the concentration of a particular substance will determine the level of harm that is possible. The harm may occur immediately (e.g. injury from a fall) or it may take time for it to become apparent (e.g. illness from long term exposure to a substance).
- How many people could be harmed? If something goes wrong, is one person affected or are many people affected? For example, a mobile crane collapse on a busy construction site has the potential to kill or injure a large number of people.
- Are there circumstances that could magnify the severity of an injury or incident? When assessing how things may go wrong, look more broadly than the immediate effects. Can one event cause other events? For example, failure of electrical supply can cause risk controls that rely on electricity in the workplace to become ineffective unless they are 'fail safe'.



Consequences may be rated as:

5. Catastrophic.	
4. Major.	
3. Moderate.	
2. Minor.	
1. Insignificant.	

2.5.3 Determine the Risk Level Associated with a Hazard

The next step is to determine the risk level posed by the hazard. The **risk level** is the combination of likelihood and consequence.

Using a table similar to the one below you can work out how high the risk level is:

	Consequence				
Likelihood	1. Insignificant	2. Minor First Aid Required	3. Moderate Medical Attention and Time Off Work	4. Major Long Term Illness or Serious Injury	5. Catastrophic Kill or Cause Permanent Disability or Illness
1. Rare	Low	Low	Moderate	Moderate	Moderate
2. Unlikely	Low	Low	Moderate	Moderate	High
3. Possible	Low	Moderate	High	High	Extreme
4. Likely	Moderate	Moderate	High	High	Extreme
5. Almost Certain	Moderate	High	High	Extreme	Extreme





It is important to rate the realistic worst-case scenario, which is the worst-case level of risk considering both consequences and likelihood.

Where there are multiple ratings for a risk, the highest combination of consequence and likelihood is taken as the final rating.

If the likelihood that anyone will be exposed to a situation under all possible scenarios is zero, then there is no risk and no additional risk control measures are required.

2.5.4 Locate Information to Determine Unacceptable Risks

Criteria for the unacceptability of the risk are determined by the organisation with reference to relevant legislation and are detailed in:

- Internal policy.
- Workplace goals and objectives.
- Regulations.
- Codes of practice for specific risks or hazards.

Some hazards such as noise and atmospheric contaminants may need to be measured to decide if further action is required.

Regulations and codes of practice for specific risks and hazards usually state measurements to determine unacceptable levels of risk, e.g. decibel levels, contaminant levels.



Risk evaluation is based upon the outcomes and results of the risk analysis. It involves making decisions about which risks need to be treated, and the order in which they should be treated.

A risk evaluation should take into consideration the:

- Context of the risks in relation to the organisation and the worksite.
- Relevant laws and regulations.
- Other policies, procedures and requirements.



The table below is a useful tool in risk evaluation:

Risk Level	Action		
Extreme	This is an unacceptable risk level The task, process or activity must not proceed .		
High	 This is an unacceptable risk level The proposed activity can only proceed, provided that: The risk level has been reduced to as low as reasonably practicable using the hierarchy of risk controls. The risk controls must include those identified in legislation, Australian Standards, Codes of Practice etc. The risk assessment has been reviewed and approved by the Supervisor. A Safe Working Procedure or Work Method Statement has been prepared. The supervisor must review and document the effectiveness of the implemented risk controls. 		
Moderate	 This is an unacceptable risk level The proposed activity can only proceed, provided that: The risk level has been reduced to as low as reasonably practicable using the hierarchy of risk controls. The risk assessment has been reviewed and approved by the Supervisor. A Safe Working Procedure or Work Method Statement has been prepared. 		
Low	The proposed task or process needs to be managed by documented routine procedures, which must include application of the hierarchy of controls.		

2.5.5 Clarifying Findings

Given the uncertainties involved in Risk Assessment and mitigation, it is essential that the information you do have is accurate and understandable. Findings that are ambiguous, unclear or doubtful need to be cleared up as soon as possible.

This may be done by using methods and resources such as:

Technical Information	From procedures, policies, operator's manuals, specifications or other documentation.
Expert Advice	Advice from internal or external experts.
Rewrite	Unclear documentation could be rewritten.
Site Visit	Fresh eyes or a review of previous inspections.

The information may be ambiguous because it is basically unclear but it may also be due to the literacy or numeracy level of the people providing or trying to interpret the information.



When communicating findings make sure you have shared the information as clearly as you can. Check by asking questions or getting the audience to provide their understanding in their own words.

If you are still unsure about risks or the degree of exposure, you should:

- Get more information from organisation records, reports, policies and procedures or other relevant external sources.
- Minimise exposure until more information is available.
- Get further specialist or expert advice if necessary.



8.	What 2 factors can you look at to work out the risk level?	
1.		
2.	•	0
9.	What is a 'consequence'?	
10.	What is the risk level a combination of?	
	nsense	
11 .	Work out the risk level of an event with a likelihood of possible, and a consequence of major.	
CC		



122 What does risk evaluation involve?	
	0
13. Is a moderate risk level acceptable?	
What 4 methods and resources can you use to clear up findings that are ambiguous, unclear or doubtful?	
1.	
2.	
3.	



3.1 Locate and Apply Existing Procedures to Address Identified Hazards

Once you have a list of workplace risks and hazards, you will need to access and apply any existing risk management procedures that relate to them. This will allow you to identify and eliminate those hazardous situations already covered by procedures.

Existing risk management procedures you may find already applied on your site can include:

- Personal safety, e.g. personal protective equipment (PPE), medical standards, drug and alcohol use, stress management and evacuation.
- Equipment and machinery isolation.
- Protection and guarding.
- Hazard identification and monitoring.
- Chemical safety.
- Fire safety.
- Other potential emergency-related circumstances.
- Uncontrolled energy.
- Shift or project changeover or handover.

Where control strategies are already in place, it is your job to check whether they are right for the situation and manage the hazards well. For example, are they based on existing Regulations, Codes of Practice and current standards?



Many hazards and risks are well known and have well established and accepted control measures. A formal risk assessment is not required when:

- WHS laws and regulations for control of certain hazards or risks are implemented and complied with, e.g. gas and electrical safety and dangerous goods laws.
- A Compliance Code or other guidance sets out a way of controlling a hazard or risk and the guidance is applicable to the situation. In these instances, the guidance can simply be followed.

Existing control measures and risk treatments are not necessarily right just because an incident hasn't occurred. This particularly applies where the existing control measures are only administrative controls (e.g. training, safety procedures, safety signs) or PPE.

These types of controls rely heavily on people always doing the right thing. Any change in behaviour (e.g. workers not following the safety procedures) could cause injury, illness or disease.

If an existing risk management procedure is right for the situation and manages the hazard well it should be applied. Once a hazard control has been put into place it should be regularly checked to make sure the risk level meets both legislative and organisational requirements at all times.





1.	List 5 existing risk management procedures you may find already applied on site.	
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2.		
3.		
4.	Sal	
5.	sense	
<u> </u>	nno	



3.2 Identify Risk Treatments and Hazard Controls



Not all hazards and risks can be managed by reviewing and updating existing documentation and instructions. In some cases you need to implement hazard controls to make the situation safe. Controlling a hazard may be achieved by a whole range of possible solutions. You will need to work out which is the best option for the situation.

Risk control involves choosing one or more options (risk treatments) to lower the risk level, and then implementing the selected options. Once an option has been implemented it is called a 'control'.

Details of all controls should be recorded in line with organisational policies and procedures for future reference.

You can work out the best way to control a hazard by:

- 1. Identifying the options for controls a control option may be a single control or it may be made up of a number of different controls that together provide protection against a risk.
- **2.** Looking at all identified control options and **choosing the best option** that most effectively eliminates or reduces risk in the circumstances.
- 3. Implementing the selected option.



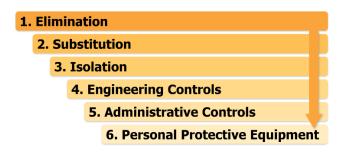
All possible options should be identified when you start looking at ways to manage hazards.



3.2.1 Hierarchy of Hazard Controls

The Hierarchy of Hazard Control is the name for a range of control methods used to eliminate or control hazards and risks in the workplace.

The Hierarchy has 6 levels shown here from most effective to least effective.





1. Elimination

This is the most effective form of hazard control. Where no hazard exists, no risk of injury or illness exists. A hazard can be eliminated if it is not really necessary to the delivery of the end product or service.



For example:

- Repair damaged equipment promptly.
- Remove trip hazards in a cluttered corridor.
- Dispose of unwanted chemicals.
- Eliminate hazardous plant or processes.

If it is not possible to eliminate the hazards or all of the risks, steps need to be taken to reduce the likelihood or degree of harm of the hazards and risks that remain.

2. Substitution

If it is not possible to eliminate the hazard, substitute it with something – preferably of a lesser risk – which will still perform the same task in a satisfactory manner.

For example:

- Substitute manual handling for appropriate plant and equipment to move materials.
- Substitute a hazardous chemical with a less dangerous one.

3. Isolation

Isolate the problem from staff. This is often done by using separate, purpose-built rooms, barricades, or sound barriers. This moves the hazardous process away from the main work area to a site where emissions can be controlled.

For example:



- Isolate and store chemicals properly by using a fume cupboard.
- Isolate copying equipment and other machinery in soundproof rooms to reduce fumes and noise.
- Use security measures to protect staff.
- Incorporate appropriate exclusion zones when operating plant and machinery.





4. Engineering Controls

Redesign equipment, work processes or tools to reduce or eliminate the risk. For example:

- Ensure proper machine guarding is in place.
- Use anti-glare screens on computer VDUs.
- Use mechanical aids to minimise manual handling injuries.
- Use wetting down techniques to minimise dust levels.
- Change bench heights to reduce bending.
- Redesign plant to reduce noise levels.
- Install forced ventilation to remove vapours.



5. & 6. Administrative and PPE Controls



These controls are a 'back-up' to the other categories. They should not be relied upon as the primary method to control risk – until all higher-level options have been exhausted.

On its own, each of these methods of risk reduction is unreliable because it relies on people acting as expected. However, in combination with more effective controls, they can be used to further reduce risk.

Sometimes 'back-up' controls should be used as the initial control phase while elimination or minimisation are being evaluated and applied.



Administrative controls include actions such as:

- Training.
 - Job rotation.
 - Redesigning of jobs.
- Maintenance of plant and equipment.
- Limitation of exposure time.
- Provision of written work procedures.

PPE should only be used as a last resort or in conjunction with other control methods.



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5.

6.

2.	What does risk control involve choosing?	
		0
3.	What is the Hierarchy of Hazard Control?	
	Caler	
	n se	
4.	List the 6 levels of the hierarchy of hazard control (from most to least effective).	
1.		



3.3 Analyse All Control Options

It is important to consider all of the options available when deciding on the best course of action. Not all options are feasible or possible under the circumstances.

You may need to use a number of control measures together to reduce the risk to an acceptable level.

The risk control plan should clearly identify the order in which to implement the individual risk controls.



3.3.1 Determine Resource Requirements

Once you have identified a range of controls you will need to analyse each option to identify what resources are required for their implementation.

Resources may include:

- People (from within the organisation, contractors and external agencies)
 human resources will be required to:
 - Provide advice.
 - Carry out physical modifications to plant or buildings.
 - Conduct staff training.
- Environmental/physical resources can include:
 Traffic control.
 - New or different plant and equipment.
 - Buildings and facilities.
 - Barriers, fencing and signs.
 - PPE.
- **Financial** financial implications of implementing the control options must be calculated, however cost is never a reason in itself for not implementing a control option.
- Technological software or process development.



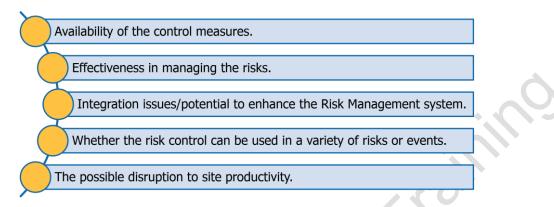




3.3.2 Check Feasibility of Control Options

Once you have identified the resources required for each option, the next step is to analyse them to see which ones are feasible (realistic and practical).

Factors to consider when looking for feasible options for risk control include:



Sometimes it may be necessary to conduct specific feasibility studies to determine the broad impacts on the operations of the business.

Feasibility studies should look at the key areas of risk to the organisation. In most cases, a feasibility study involves the use of specific questions to get the most detailed information. For example:

Factor	Points for Consideration:
Legal	 What legislation may be relevant to operations? Is the organisation likely to breach current regulations or laws? Will changes open the organisation to legal issues?
System Impacts	 What impacts may be felt to current management systems such as: Quality. Safety. Environmental. Human resources. Information management. Technology or corporate management. Will there be effects on other areas to compensate?
Reputation	 Will potential changes be accepted by stakeholders? Will the status of the organisation or individuals be affected? Will it impact current or potential customers? How might the organisation be seen if it is considered unpopular?
Management	 How will modifications or new systems be managed? Does the current structure of the business cater for changes? Are more or less management people required?



For a control option to be feasible it must be:

Available	Must be available to be purchased. It or its parts can be purchased, made to suit or be put in place.
Suitable	Must be suitable for the circumstances in the workplace. It will work properly given the workplace conditions, work process and the people who do the work, and have the least impact on the delivery of goods or services.
Highest Level	Must provide the highest level of protection for the people and is the most reliable. Controls that are towards the top of the hierarchy.

When deciding which types of control measure are feasible, you should think about the severity of injury, illness or disease that could occur. If the severity is high (fatality, serious injury), a higher level of control (elimination, substitution or isolation) should be used.

You should always try to implement the highest possible level of hazard control to reduce the likelihood of the risk. Never depend on just using PPE unless you have worked out that all higher level controls are not practical or feasible.

Where the hazard or risk has the potential to cause high levels of harm (e.g. death, serious injury or serious illness), more emphasis should be given to those controls that eliminate or reduce the level of harm, than those that reduce likelihood.

The thing to remember is that the controls need to provide the highest level of protection possible in the circumstances, while still being realistic and practical.



3.3.2.1 Considering Cost When Evaluating Control Options



Inability to afford the cost of a particular control option is not a factor in determining what is reasonably practicable.

The legislation expects the company, site or organisation duty-holder to cover the cost of controls generally used and accepted in that particular type of site, company or enterprise.

A decision not to implement controls because of cost should only be made where the cost far outweighs the safety benefits that will be achieved.

If two control strategies will result in the same levels of protection for people and have the same reliability, it is appropriate to adopt the least costly option.

Cost should not be used as a reason for adopting controls that rely totally on changing people's behaviour or actions when there are controls available that can change the risk through elimination, substitution, engineering or isolation.



3.3.3 Select the Most Appropriate Control



Selecting the most appropriate hazard control involves balancing the costs and efforts of implementation against the benefits or outcome.

Essential things to consider are the legal, regulatory and other requirements such as social responsibility and the protection of the natural environment.

Decisions should also take into account risks whose control is not justifiable on economic grounds, e.g. severe (high negative consequence) but rare (low likelihood) risks.

Under the WHS legislation you are required to introduce treatments or control measures to eliminate the risk, or if that is not possible, to reduce the risk so far as is reasonably practicable.

The term "reasonably practicable" has a particular meaning under the WHS legislation. It means practicable with regard to:

- The likelihood or probability of a person being exposed to harm.
- The potential seriousness of injury or harm that would result.
- What the person concerned knows, or should reasonably know, about the hazard or risk and any ways of eliminating or reducing that hazard or risk.
- The availability and suitability of ways to eliminate or reduce the hazard or risk.
- The cost of eliminating or reducing the hazard or risk.

You must be able to show consideration of all the above factors in selecting the most appropriate control with regard to the legislation and the organisation.

3.3.4 Confirming Controls

Before confirming the selected course of action it is necessary to analyse the:

Resource requirements.
Cost.
Safety.
Welfare issues.
Site constraints that may be impacted.
The consequences of not controlling the risk.

Once you have examined the constraints on the selected action, you are able to confirm the selection of the chosen control method.



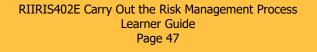


5.	List 3 factors to consider when looking for feasible options for risk control.	
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2.	•.•	0
3.		



*

What does selecting the most appropriate hazard control involve?





3.4 Prepare a Risk Treatment Plan



After decisions have been made about the most appropriate hazard controls, you will need to prepare a plan detailing how to manage the risk.

Make sure the plan is prepared in line with organisation requirements and processes. There may be document templates that you need to use.

The plan should be developed in consultation with the relevant managers, health & safety representatives and workers.

When documenting the selected course of action, it is essential that you ensure your documents are:

Clear	Using plain English is essential. Don't use jargon or acronyms unless they are widely understood.
Concise	Keep your reports concise and to the point.
Detailed	As much as required.
Accurate	Accuracy is vital.
Complete	All evidence should be included in your report.
Logically Arranged	Ensure the logical flow of the information.

At a minimum, your plan should include the following information:

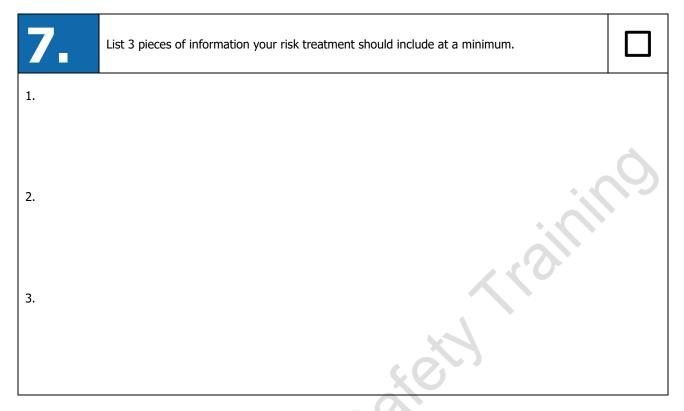
- Why the Risk Assessment is being carried out.
- All the actual and potential hazards in the workplace.
- The measures that are already in place to control risks.
- Risk rating for each hazard using the Risk Evaluation table, giving them a priority of Extreme, High, Moderate or Low. Address extreme risks first, followed by high risks, moderate risks and finally low risks.
- The measures recommended to control the hazard. You can use one, or a combination of controls.
- A copy of the implementation plan.
- Additional comments that:
 - Clarify or explain the risk rating or controls proposed.
 - Outline any special monitoring or other arrangements that will accompany any of the control measures.
 - Highlight any special feature or characteristic of the hazard.
 - Aid the implementation of the controls.
- Your signature and the date of the report.











3.5 Implement or Facilitate Hazard Controls

Once the control measure has been chosen, planned for and approved by higher level management, the next step is to implement (or facilitate the implementation of) the procedures to control the recognised hazards.

If the implementation of the action is being completed by other personnel you will need to:

- Brief them on the course of action.
- Train them in the implementation.
- Monitor their implementation.
- Ensure the details are recorded and documented.
- Use feedback to streamline the system or process.
- Acknowledge differences in opinion, education and experience and make appropriate allowances.
- Be flexible to make changes as necessary.





It is extremely important that all procedures are applied correctly and according to organisational policies.

Speak with any workers who are responsible for implementing controls to make sure they are aware of what they need to do, when they should do it and how they should do it.

Monitor the progress of the implementation of the hazard controls to make sure you can address any unexpected issues quickly. Keep a record of any deviation form the plan during the implementation of the controls.

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3.5.1 Apply Safety Regulations and Procedures

Safety regulations and procedures must be observed and applied at all times during the Risk Management process. These requirements could come from:

- State, territory or federal legislation.
- State, territory, local or federal regulations.
- Management Plans.
- WHS policies and procedures.
- Australian Standards.
- Codes of practice.
- Manufacturer's instructions.
- SOP's.
- Work Method Statements (WMS).





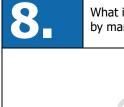


Check relevant legislation and documentation regularly for updates.

Most governments have a notification system that will send an email when safety regulations, codes of practice or standards are updated.

As a Risk Management professional it is a good idea to be on the mailing lists for any group, department or organisation that can have an impact on your business.

Review Questions



What is the next step after the control measure has been chosen, planned for and approved by management?

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9.	List 4 places that safety regulations and procedures could come from.	
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3.6 Provide Details of Implementation of Controls to Personnel

Information on the control and its implementation will need to be communicated to the relevant people.

Communications can take many forms depending upon the audience and the information, and may include:

- Face to face.
- In writing:
 - Work method statement (WMS).
 - Standard operating procedures (SOP).
 - Safe operating procedures (SOP).
 - Safe Work Procedures (SWP).
 - Job Safety Analysis (JSA).
 - Newsletters.
 - Flyers.
- By telephone or other electronic means.
- Formal meetings.
- Informal meetings.

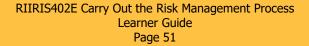
The aim of these communications is to ensure authorised personnel are aware of the action that has been taken and the results of those actions.

It is important that these personnel are aware of any further situations that pose a risk, and the action being taken to manage the situation.











To ensure everybody understands what they need to do, or how the controls affect the way they carry out their work you may need to:

Conduct Briefings	To inform all workers of the approach adopted for the workplace.
Provide Additional Training	To maintain competencies of all workers and supervisors, and to ensure new employees are capable of working safely.
Reinforce Changes	New procedures or practices may need management to ensure that everyone is meeting all new requirements for safety. You should watch the implementation process to confirm that all personnel are contributing effectively and meeting new standards.

3.6.1 Coach Personnel to Effectively Carry Out Action Plans



You should provide assistance to personnel who are responsible for the implementation of the hazard controls. As somebody in a supervisor role it is important that you provide the right support and information to all personnel that you manage.

This is especially important when it comes to risk management because an ineffective implementation of hazard controls could put people in danger.

Check back regularly with all workers. This is to make sure that the control measures are not introducing any new risks or hazards.

Review Questions

What 3 things may you need to do to ensure everybody understands what they need to do, or how the controls affect the way they carry out their work?	
1.	
2.	
3.	





Why should you check back regularly with all workers who are carrying out the action plans?

3.7 Review Control Implementation

Ongoing reviews are necessary to ensure the implementation and application of risk controls, new procedures and investigative outcomes have occurred in the manner required.

When implementing a review process it is necessary to ensure the review meets the requirements for the work site.

Facilitating ongoing reviews of the application of risk controls should be a regular activity.

This may mean running the review or simply providing guidelines for an onsite evaluation.

If during the review process you determine the implementation or application of the risk control is not working, you will need to investigate why the control is inadequate and develop a strategy for increasing the effectiveness of the control method.



3.7.1 Handling Anomalies or Shortcomings

Anomalies and shortcomings identified during the review process will need to be responded to or referred to other more appropriate people or organisations.



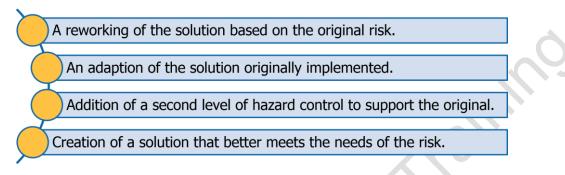


3.7.1.1 Initiating Follow Up Actions

When anomalies or shortcomings in Risk Management or hazard mitigation are identified, you need to know why it has not been successful and find the best of the available options to deal with the situation.

Follow up actions can range from a small tweak of the system to a complete scrapping of the original solution and the development of a new approach.

Follow up actions could include:



3.7.1.2 Referring Action to Appropriate Parties

If you are unable to address the issues yourself it will be necessary to refer the anomalies to appropriate parties. An appropriate party could include:

- Designated personnel.
- Working committees.
- External specialists.
- Internal specialist.
- Alternative departments.





When referring the situation to other parties, ensure you give the other party all the information that they will need to achieve any goals or targets and to rectify the anomaly or shortcoming.

Note that addressing the anomaly or shortcoming is now a new Risk Assessment and Risk Management process, so ensure all relevant steps are completed and documented in the process.



12.	Why are ongoing reviews of control implementation necessary?	
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13.	List 3 follow up actions you could initiate.	
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4.1 Audit the Risk Management Process



An audit is an examination of the system, process, product or structure to determine compliance.

If an audit is carried out correctly, the results should provide objective evidence about any aspect of the system, process, product or structure that is not achieving targets, goals or objectives in the required manner.

Audits should be used as a management review tool and an instrument for continuous improvement.

When conducting an audit, auditors should be objective in their investigations and evaluate against predefined criteria, standards and processes.

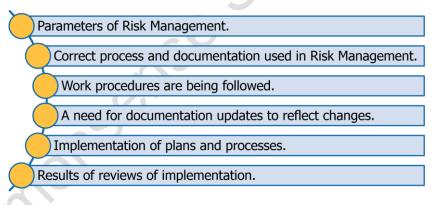
The focus of the audit should be on ensuring compliance with guidelines and effectiveness of the systems.

Internal audits will generally focus on a particular department, product, system, project or process. The resulting information may be used by management to aid in decision-making and continuous improvement. It may also bring out specific issues.

External audits are generally used for certification or major review. People external to the organisation use specific criteria to evaluate the performance of the business systems.

External audits may also be useful in identifying potential risks that may not be visible inside the business. These may relate to specific compliance or legal requirements and may recommend structural changes to the organisation's operations.

Audits are often used to confirm:



Once an audit is complete, it is necessary to report compliance or to give recommendations for improvements or changes. When giving recommendations you should ensure you:

- Use specific language; do not be vague in what you are saying.
- Give details of why a recommendation is being made.
- Offer suggestions if appropriate.
- Make the recommendation report concise, clear and readable.
- Use photos, graphs or other visuals as needed for clarity.

Audits are simply a tool that can be used to ensure the suitability of a process, task, product or other factor. They are an opportunity for improvement, not punishment.



4.1.1 Consult with Others during the Audit Process



It is important that you consult with various parties during the audit process to get a complete picture of the impact of the risk management system. It can be very difficult to assess the effectiveness of the process without seeing how all parties involved have been affected.

Consultation with others will allow you to identify any issues with the process and actions that have been taken.

Issues could include:

- The scope of the risk management process too wide or too narrow to be effective.
- Work procedures not reflecting real world expectations, impractical, does not achieve a quality outcome.
- **Training requirements** personnel are not appropriately skilled.
- Human resource requirements not enough personnel available to carry out plan.



4.1.2 Respond to Changed Requirements

Audit reports will highlight areas of change to business operations, management systems, process control, and work procedures.



This will normally cause a Change Management process. This is where the areas of concern are addressed in an orderly manner following business procedures governing change.

The response to an audit report may require action from the management or business unit.

These actions should be considered in the same manner as the original risk assessment process, not run as an ad-hoc reaction.

There should be a planned response to audit findings and it should be implemented in a methodical manner.

Where modifications are required to systems or processes, relevant personnel and stakeholders should be advised of changes and the potential impacts this may have on the business.

Good communication is vital and clarification should always be sought from the auditor if the intent of the audit report is unclear.

The simplest manner of responding systematically is the creation of a checklist.

This checklist will list any changes that need to be made and allow you to implement changes in a systematic way.





1.	What is meant by the term 'audit'?	
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2.	Why is it important that you consult with various parties during the audit process?	
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ζ°		



3.

What happens in a change management process?

4.2 Complete Risk Documentation



Completing and retaining the Risk Management documentation is important to ensure correct decisions have been made for the right reasons and by the appropriate people.

It is also essential so there is an audit trail – the process can be followed through later to determine where things were done right and where things were missed.

The Risk Management documentation also assists:

- Continuity of information this helps when staff changes.
- Future planning can be used to plan changes as required.
- Availability of information for future reference and actions.
- Legal requirements some documents need to be kept for varying lengths of time to meet legal responsibilities.
- Business record keeping and archiving protocols. These will vary depending upon the worksite.
- Knowledge management completing and retaining all documentation that allows shortcuts in the learning curve if a similar situation arises.
- Alignment to production and maintenance records of plant or equipment for identifying hazards or risks.
- Aids in contingency planning and development.
- Use as a management tool in streamlining systems both current and future.
- Access to data for statistical purposes.





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4.2.1 Complete Records and Reports

Risk Management activities will all be documented and as a risk assessment specialist it could be necessary for you to produce, process or maintain risk assessment documentation and reports. How you will do this will be determined by the processes, procedures and requirements of the site you are working on.

Risk Management documentation and reports could include:

- Objectives documents.
- Parameters of the risk assessment strategies.
- Parameters of the Risk Management tasks.
- Preferred methodology.
- Results and recommendations.
- Risk assessment forms.
- Action planning documentation.
- Notes, interviews, plans and draft documents.





The methods used for Risk Management documentation and reporting vary between sites and organisations.

It is important that you are aware of the different systems used on the site you are currently working on.

Most systems are now computerised, which allows for easy access to the required information from any terminal or access point within the mine site.

Adequate training in the system being used on your site is essential to getting the best out of the recording and documenting system being used by your organisation.

4.2.2 Maintaining Risk Management Reports and Documents

Documents need to be maintained correctly to enable their effective use. This maintaining could include:

- Adding to forms or other documents.
- Filing the documents correctly for your site.
- Monitoring the use of the documents.
- Using the documents for decision-making purposes.
- Update systems and other documents regularly.

Often relevant records and documents are not known to be relevant until they are needed but they are out of date, unavailable or have been discarded.

To avoid this situation, if you are discarding documentation, scan and maintain the documents in a digital format that is searchable and archive the electronic version.





4.	List 3 things that risk management documentation can assist with.	
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5.	List 4 types of risk management documentations and reports.	
5.	List 4 types of risk management documentations and reports.	
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6.	What 5 ways can you maintain documents correctly?	
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Practical Assessment Instructions

The practical assessment consists of 2 individual assessments, which may run in a single sequence from task to task under the guidance of the assessor.

Conditions of Assessment

- **1.** You are required to undertake an assessment for carrying out the risk management process in the resources and infrastructure industry.
- 2. The assessor will provide you with instructions about what you are required to do.
- 3. If you are unclear about what you have to do, ask the assessor before you start.
- **4.** Each person must be observed and be assessed as being competent in each task even in situations where the work is completed by a team.
- 5. You may not use any references, books or course notes during the assessment, unless these resources are common to completing the task when performed in a real work environment.
- 6. All assessments must be satisfactorily demonstrated. If you do not satisfactorily complete an assessment a result of 'Not yet competent' will be recorded.
- **7.** You should be able to complete all assessments within [set duration]. The time stated is a guide only. If you cannot complete the assessment in the stated time then this will be considered when assessing overall competency.

Personal Protective Equipment (PPE) Requirements

You must wear safety clothing and equipment as required by the risk assessment of the workplace or assessment environment. This includes:

[Enter any equipment appropriate to the course, or delete equipment that is not necessary.]

- Safety helmet (where required).
- Appropriate footwear.
- High-visibility vest or other similar clothing.
- Other protective clothing and equipment as appropriate.

Your assessor will confirm the availability of required PPE when making arrangements to conduct the assessment. If you do not have the appropriate equipment the assessment cannot be undertaken.

Grounds for Stopping the Assessment

If at any time during the practical assessment, you act in a way that puts yourself, other learners, equipment or property in any danger, the assessment will be stopped immediately. Your assessor will identify and record the dangerous act to you and re-schedule the assessment to be attempted again at a later time. You may be required to complete part or all of the practical assessment again at that time, at the discretion of your assessor.

Achieving a Satisfactory Outcome

In order to achieve a satisfactory outcome for the practical assessment you will need to:

- Complete all tasks and assessments in their entirety.
- Complete all tasks and assessments satisfactorily in a timely manner, representative of real world conditions, expectations and outcomes.
- Complete all tasks and assessments safely, using the correct techniques and methods and ensuring your own safety and the safety of others at all times.
- Working with others, where necessary, to safely, effectively and efficiently achieve all outcomes of the tasks and assessments.



Practical Assessments

The practical assessments are outlined below:

Assessment 1: Carry Out the Risk Management Process to Respond to a Risk Identified in the Workplace (Occasion 1)

You will need to demonstrate how to carry out the risk management process by completing the following tasks:

- a) Preparing a plan of the risk management process, and:
 - (i) Identifying risk management documentation and confirming your requirements.
 - (ii) Identifying and determining the processes to be used.
 - (iii) Identifying and developing the parameters.
 - (iv) Identifying and interpreting the information and data needed and applying it.
 - (v) Identifying the types of potential worksite hazards.
 - Submit a completed copy of your Risk Assessment Plan to your assessor.
- **b)** Carrying out routine hazard identification, including:
 - (i) Communicating the process of hazard identification to other personnel.
 - (ii) Performing the hazard identification process with others.
 - (iii) Checking and adding potential variations from changes to work practices, systems or technology.
 - (iv) Analysing the hazard identification process.
 - (v) Preparing written documents to communicate loss scenarios by completing all details for **Sections 1.1 and 1.2** of the *Hazard Report Form*.
- c) Assessing risk and identifying the unacceptable risk level, including:
 - (i) Determining the likelihood of the loss scenario and completing Section 1.3 of the Hazard Report Form.
 - (ii) Analysing the consequence if the loss scenario did occur and completing **Section 1.4** of the *Hazard Report Form*.
 - (iii) Determining the risk level of the situation and completing Section 1.5 of the Hazard Report Form.
 - (iv) Sourcing the site criteria for assessing the acceptability level in coordination with the appropriate party.
 - (v) Determining the acceptability level of the risk and completing Section 1.6 of the Hazard Report Form.
 - (vi) Seeking expert advice on ambiguous, unclear or doubtful information.
- **d)** Identifying potential actions to control risks and deciding on a course of action, by:
 - (i) Identifying existing hazard controls and completing Sections 2.1 and 2.2 of the Hazard Report Form.
 - (ii) Analysing and documenting the range of risk controls and completing **Sections 2.3 2.5** of the *Hazard Report Form*.
 - (iii) Identifying new risk control options, using the hierarchy of hazard control.
 - (iv) Verifying feasible options.
 - (v) Selecting the most appropriate risk controls.
 - (vi) Analysing the resource requirements cost, safety and welfare issues to confirm the selected course of action.
 - (vii) Preparing written documentation outlining the selected course of action and resources and completing **Sections 3 & 3A** of the *Hazard Report Form*.
- e) Facilitating the implementation of the chosen risk controls, by:
 - (i) Implementing the course of action plans in coordination with other personnel.
 - (ii) Maintaining the standard for safety regulations and procedures.
 - (iii) Communicating the relevant information on work procedures and action plans to all involved parties.
 - (iv) Reinforcing the requirements by observing the impact of information and action plans.
 - (v) Coaching others to carry out action plans.

f) Reviewing the implementation process and the controls implemented by completing Section 4 of the Hazard Report *Form* and:

- (i) Facilitating an ongoing review process.
- (ii) Routinely reviewing the processes, actions and controls to respond to changing work environments.
- (iii) Referring to the appropriate party to respond to anomalies and shortcomings.
- Submit a copy of the completed Hazard Report Form to your assessor
- g) Auditing the risk management process in consultation with appropriate personnel, by:
 - (i) Conducting an audit of the process and work procedures, and amending them if required.
 - (ii) Consulting with others to identify issues with action plans.
 - (iii) Responding to changed requirements in a systematic and timely manner.
 - (iv) Completing and storing all written documentation that covers the reason for risk management and the changes made.

Submit a copy of the risk management process review documentation to your assessor.

h) Preparing a report of all written risk management documentation and presenting it to the appropriate audience. Submit a completed copy of the Risk Management Report to your assessor.



Assessment 2: Carry Out the Risk Management Process to Respond to a Risk Identified in the Workplace (Occasion 2)

You will need to demonstrate how to carry out the risk management process by completing the following tasks:

- a) Preparing a plan of the risk management process, and:
 - (i) Identifying risk management documentation and confirming your requirements.
 - (ii) Identifying and determining the processes to be used.
 - (iii) Identifying and developing the parameters.
 - (iv) Identifying and interpreting the information and data needed and applying it.
 - (v) Identifying the types of potential worksite hazards.
 - Submit a completed copy of your Risk Assessment Plan to your assessor.
- **b)** Carrying out routine hazard identification, including:
 - (i) Communicating the process of hazard identification to other personnel.
 - (ii) Performing the hazard identification process with others.
 - (iii) Checking and adding potential variations from changes to work practices, systems or technology.
 - (iv) Analysing the hazard identification process.
 - (v) Preparing written documents to communicate loss scenarios by completing all details for **Sections 1.1 and 1.2** of the *Hazard Report Form*.
- c) Assessing risk and identifying the unacceptable risk level, including:
 - (i) Determining the likelihood of the loss scenario and completing **Section 1.3** of the *Hazard Report Form*.
 - (ii) Analysing the consequence if the loss scenario did occur and completing **Section 1.4** of the *Hazard Report Form*.
 - (iii) Determining the risk level of the situation and completing Section 1.5 of the Hazard Report Form.
 - (iv) Sourcing the site criteria for assessing the acceptability level in coordination with the appropriate party.
 - (v) Determining the acceptability level of the risk and completing **Section 1.6** of the *Hazard Report Form*.
 - (vi) Seeking expert advice on ambiguous, unclear or doubtful information.
- d) Identifying potential actions to control risks and deciding on a course of action, by:
 - (i) Identifying existing hazard controls and completing Sections 2.1 and 2.2 of the Hazard Report Form.
 - (ii) Analysing and documenting the range of risk controls and completing **Sections 2.3 2.5** of the *Hazard Report Form*.
 - (iii) Identifying new risk control options, using the hierarchy of hazard control.
 - (iv) Verifying feasible options.
 - (v) Selecting the most appropriate risk controls.
 - (vi) Analysing the resource requirements cost, safety and welfare issues to confirm the selected course of action.
 - (vii) Preparing written documentation outlining the selected course of action and resources and completing **Sections 3 & 3A** of the *Hazard Report Form*.
- e) Facilitating the implementation of the chosen risk controls, by:
 - (i) Implementing the course of action plans in coordination with other personnel.
 - (ii) Maintaining the standard for safety regulations and procedures.
 - (iii) Communicating the relevant information on work procedures and action plans to all involved parties.
 - (iv) Reinforcing the requirements by observing the impact of information and action plans.
 - (v) Coaching others to carry out action plans.
- **f)** Reviewing the implementation process and the controls implemented by completing **Section 4** of the *Hazard Report Form* and:
 - (i) Facilitating an ongoing review process.
 - (ii) Routinely reviewing the processes, actions and controls to respond to changing work environments.
 - (iii) Referring to the appropriate party to respond to anomalies and shortcomings. Submit a copy of the completed Hazard Report Form to your assessor
- g) g) Auditing the risk management process in consultation with appropriate personnel, by:
 - (i) Conducting an audit of the process and work procedures, and amending them if required.
 - (ii) Consulting with others to identify issues with action plans.
 - (iii) Responding to changed requirements in a systematic and timely manner.
 - (iv) Completing and storing all written documentation that covers the reason for risk management and the changes made.

Submit a copy of the risk management process review documentation to your assessor.

h) Preparing a report of all written risk management documentation and presenting it to the appropriate audience. Submit a completed copy of the Risk Management Report to your assessor.

