

Safety Guide

SAFETY Everyone, Everywhere, Every day

SAFETY RISK ASSESSMENT

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PURPOSE

The purpose of this guide is to explain the requirements for completing a **Safety Risk Assessment Form (FOR287)** using the Risk Calculator Matrix in order to ensure a consistent method of assessing risks in QUU.

SCOPE

This covers all work areas controlled by QUU.

REFERENCE DOCUMENTS

For additional guidance during the **Safety Risk Assessment** process refer to the following documents.

- Safety Risk Assessment Form (FOR287)
- QUU WHS Hazard and Risk Management Procedure (PRO363).
- QUU Risk Management Procedure (STD119).
- QUU Risk Assessment Guide (PRO84).
- Qld Work Health and Safety Act 2011.
- Qld Work Health and Safety Regulation 2011.
- Qld How to Manage Work Health and Safety Risks Code of Practice 2011.
- AS/NZ ISO 31000:2009 Risk Management – Principles and Guidelines.

INTRODUCTION

This risk management process is an integral part of assessing and managing work health and safety (WHS) risks across QUU. It is a logical and systematic approach to minimising loss and maximising opportunities. The key to risk management is to identify the hazards, analyse the risks and evaluate whether the risk is acceptable or unacceptable.

Control options then need to be developed, evaluated and implemented to treat the WHS risk. Communication and consultation should be conducted throughout the safety risk management process. The success or failure of risk management strategies relies on the effectiveness of this communication and consultation.

The effectiveness of WHS risk control measures often comes down to the commitment of individuals to follow the risk management process. Therefore it is essential that all QUU managers and staff have ownership of the process and can see the benefits to themselves and the organisation of effectively managing WHS risks.

To properly manage exposure to WHS risks, a Person Conducting a Business or Undertaking (PCBU) must do all of the following:

- a) Identify hazards – find out what could cause harm.

- b) Assess risks, if necessary – determine the nature and impact of any harm that may result because of the hazard.
- c) Control risks - decide and implement the most effective control measures to prevent, or minimise the level of, the risks.
- d) Monitor and review – confirm the effectiveness of control measures.

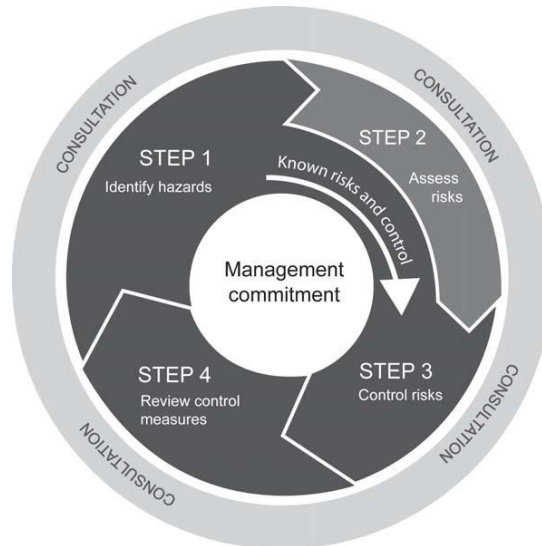


Figure 1: The risk management process.

To properly manage exposure to WHS risks, a person should consider addressing the control measures in the order shown in Figure 2 below.

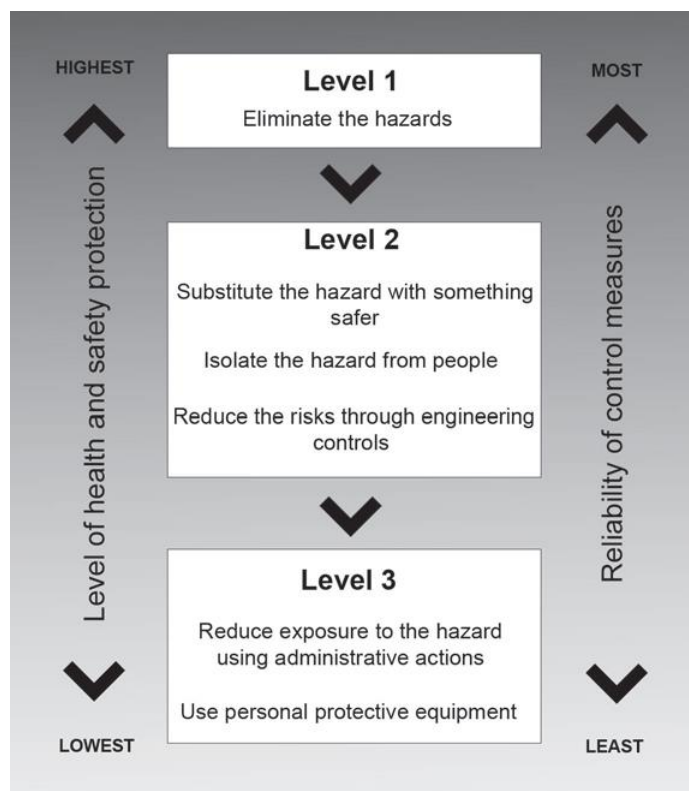


Figure 2: The hierarchy of WHS risk control

This is known as the Hierarchy of Control where the ways of controlling risks are ranked from the highest level of protection and reliability to the lowest (as shown in Figure 2). The Queensland WHS legislation requires QUU and all other duty holders to manage WHS risks in accordance with this hierarchy. This means at all times when managing our hazards and the level of risk QUU must attempt to implement the highest level of control (eliminate the hazard) or use a combination of controls that provide the greatest level of protection against WHS risks.

NOTE:

- When considering the appropriate method of risk control, if it is referenced in the Work Health and Safety Act or Regulation you **MUST FOLLOW** the requirements.
- If it is referenced in a Code of Practice, QUU Safety Procedure or QUU Safe Work Method Statement (SWMS) you **MUST MEET** the requirements or exceed them in another way that provides the same or greater level of protection.

SAFETY RISK ASSESSMENT – (Administration)

The Safety Risk Assessment should be used in all circumstances where a potential risk is identified including risk assessments for Hazardous Substances, Dangerous Goods, Plant, First Aid or Manual Handling. Specifically, the Safety Risk Assessment is to be completed:

- As part of an Incident Investigation (whether a serious incident or near miss).
- In conjunction with Pre-start site assessments.
- When an existing SWMS or formal risk assessment does not identify a hazard or control to suitably manage WHS risks associated with a task.
- Where a specific safety issue or hazard not covered by a QUU procedure or SMWS is being addressed.
- When assessing the workplace layout (e.g. traffic management plan) before starting a job.
- Whenever there is a change in the work environment.
- When a risk assessment must be completed in conjunction with the hazard or incident report form for presentation to a Safety Committee.

PROCESS STEPS

Completion of information at the top of the sheet: Work Area, Task / Scope of assessment, Date, any assumptions made and the QPulse Reference number (where applicable).

Hazard Identification:

What is/are the hazard(s) that have been identified (refer to Appendix 1, Hazard Identification Guide) OR what are the steps to be taken to complete the task. **NOTE:** Each hazard that is identified must have a risk ranking.

Current Controls: Record any current controls in place in this column (this can be an existing SWMS or procedure). If there are none, write nil, or N/A however ensure that this column has something in it to show that it has been considered.

Inherent Risk: For each hazard or potential risk exposure determine the Risk Ranking based on the controls already in place (if they exist) using the Risk Matrix located below. If the SWMS is the only control currently in place this will be the highest risk ranking noted on the SWMS). See the section on the Risk Score Matrix (below) for assistance.

Recommended Controls: Identify and record in this column any additional controls required to eliminate or reduce the risk to an acceptable level. Risk controls must be selected based on the hierarchy of controls (see above). Also record the type of control e.g. 'corrective' and/or 'preventative'.

Hierarchy of Hazard Controls: Each risk control must be determined using the 'Hierarchy of Control'. Consideration must always be given to eliminate the hazard (most effective) and where this is not possible

work through other lower-order risk controls (providing PPE is the least effective method). A combination of risk controls can be selected and applied. Once all controls have been identified, **highlight** the control levels that have been applied.

Revised Risk: Taking into consideration both the existing and recommended controls reassess and determine the final risk ranking.

Responsibility: Insert the name of the person who is responsible for investigating, developing, implementing and monitoring the control. The person responsible must be advised of the control, agree with the completion date and sign to indicate their understanding and acceptance.

Comments / further actions required: Capture any additional comments or further actions required to ensure the effectiveness of the risk control process.

Acknowledgment: Once completed, the risk assessment must be signed by all persons who have contributed to the risk assessment process and who must follow / apply the identified controls.

Approval: The relevant supervisor / manager must formally sign off on the risk assessment prior to work commencing or where any change to the risk assessment occurs. Signature acknowledges their understanding and endorses the risk controls required to reduce identified WHS risks.

RISK CALCULATOR MATRIX

This Risk Calculator Matrix is designed to prioritise actions that arise out of any type of risk assessment.

There are four risk rankings, each with different numerical scales to allow for prioritisation:

- Low Risk (1 – 3)
- Medium Risk (4 – 5)
- High Risk (10 – 15)
- Extreme Risk (20 – 30)

Each hazard identified must have a risk ranking.

Responsibilities for each level of Risk Ranking

Low

If the risk is ranked as Low, the person/team undertaking the activity or rating the hazard can continue working keeping in mind that the controls identified must be communicated and maintained.

Medium

If the risk is ranked as Medium, the person/team undertaking the activity or rating the hazard can continue working keeping in mind that the controls identified must be communicated and maintained.

High

If the risk is ranked as High, the person/team undertaking the activity or rating the hazard must not continue with the activity **and** must identify any additional controls required to reduce the risk ranking of an event occurring to Low or Medium.

Once controls have been identified they must be reviewed by the next level of Supervisor or Manager who must approve and ensure the implementation of the agreed controls before any work can commence or proceed.

Extreme

If the risk is ranked as Extreme the person/team undertaking the activity or rating the hazard must not continue with the activity but must identify any additional controls required to reduce the risk ranking of an event occurring to Low or Medium.

Once controls have been identified they must be reviewed by the next level of Supervisor and Manager who must approve and ensure the implementation of the agreed controls before any work can commence or proceed.

What if identified controls cannot reduced from Extreme to Low or Medium

For work to continue in these circumstances the request to conduct the work and recommended risk controls must be escalated by the appropriate General Manager to **BOTH** the **Chief Executive Officer (CEO)** and the **Chief Operating Officer (COO)** who must jointly consider and approve the risk controls / treatment plan.

Consequence		Likelihood				
		1. Rare May occur in exceptional circumstances	2. Unlikely Could occur in some circumstances	3. Possible Might occur in some circumstances	4. Likely Will occur in most circumstances	5. Almost Certain Is expected to occur
	E. Catastrophic Loss of life or total disability	High 10	High 15	Extreme 20	Extreme 25	Extreme 30
	D. Major Immediate admission to hospital or long term disability	Medium 4	Medium 5	High 10	High 15	Extreme 20
	C. Moderate LTI . Ongoing medical treatment	Low 3	Medium 4	Medium 5	High 10	High 15
	B. Minor First aid or medical treatment with no follow-up required.	Low 2	Low 3	Medium 4	Medium 5	High 10
	A. Insignificant Near miss, injury with no treatment	Low 1	Low 2	Low 3	Medium 4	Medium 5
Risk Ranking- Residual risk must be Low or Medium before any work continues / commences						
Low		Medium		High		Extreme
Risk at acceptable levels		Caution		**STOP THE JOB!**		**STOP THE JOB!**
Controls must be maintained		Controls must be assessed, communicated and maintained		Supervisor <u>OR</u> Manager must approve and implement appropriate controls before work can proceed		Supervisor <u>AND</u> Manager must approve and implement appropriate controls before work can proceed

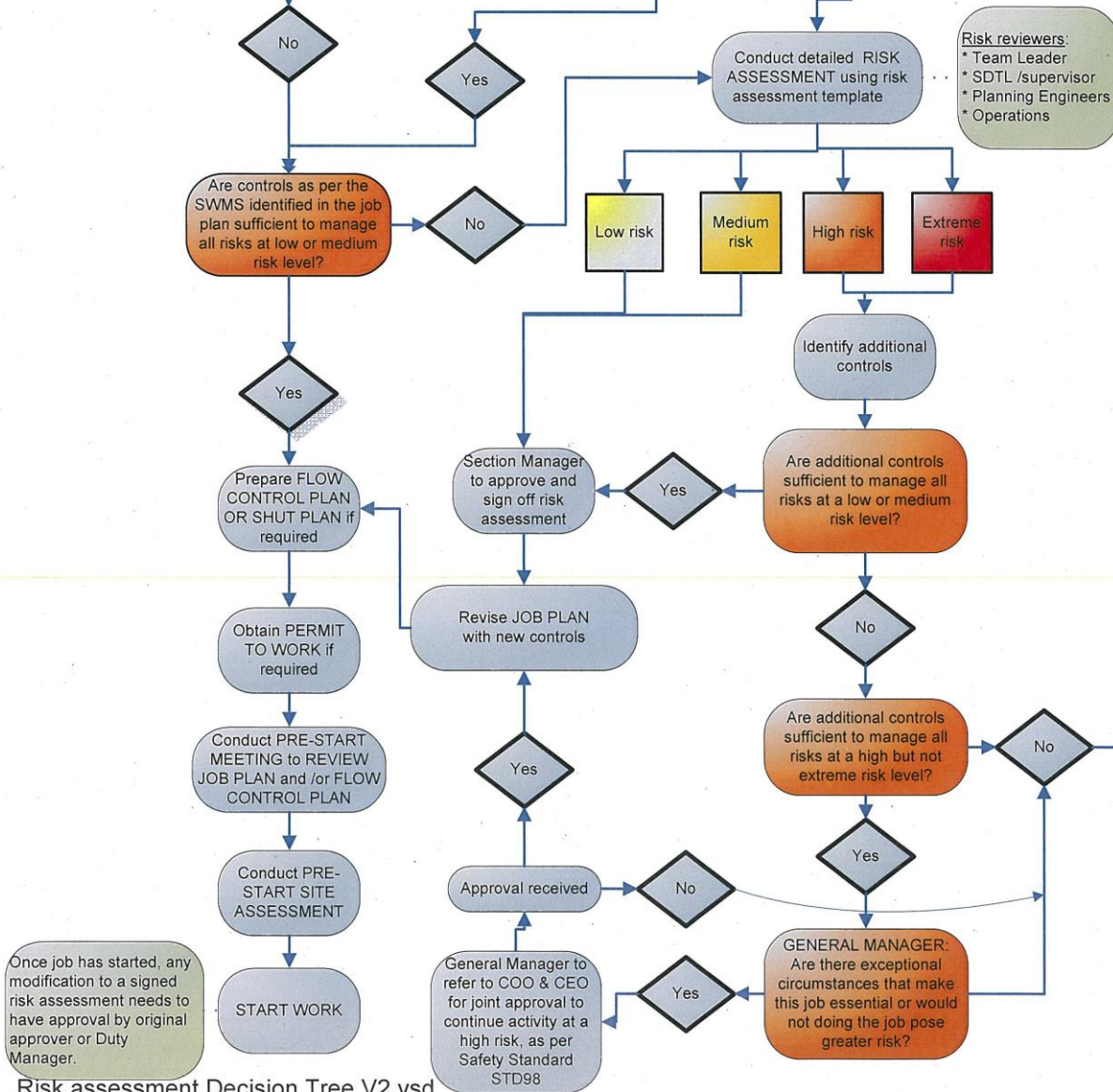
RISK BASED PLANNING PROCESS FOR PLANNED WORKS

Stakeholders:

- * Team Leader
- * SDTL
- * Planning Engineers
- * Operations

Consider

- * WHS risks
- * Customer impact
- * Environmental impacts
- * Reputational risks



Risk assessment Decision Tree V2.vsd

HAZARD IDENTIFICATION GUIDE

The following categories are designed to assist in the identification of hazards and risks within the Safety Risk Assessment Management Framework.

Types of Safety Hazards

Physical hazards Noise, Vibration Falling objects, slips, trips and falls Sharp objects or edges Rotating machinery, moving objects or vehicles High pressure fluids Housekeeping Striking utility services Wet surfaces Drowning	Chemical hazards Solvents, cleaning agents, Fuels, acetylene, LPG Asbestos, Synthetic Mineral Fibres Pesticides, Poisons Glues Dusts, Lead, Silica Toxic gases Liquid nitrogen
Electrical hazards Faulty electrical equipment Frayed power cords Live wires, overhead powerlines Plant isolations Overloaded circuits Electrical equipment not tested & tagged	Biological hazards Effluent products Bacteria, Legionella, Hepatitis Viruses, Dengue fever, Ross River fever Infected blood Insects, Spiders, Snakes Contaminated food or water
Radiation Hazards Welding Lasers Sun exposure - UV exposure X-rays, Ionising radiation Infrared radiation	Thermal Hazards Hot surfaces, Steam, Hot fluids Outdoor work – exposure to heat, cold Stoves and ovens Freezers Compressed gases, Liquid nitrogen
Ergonomics Lifting or moving heavy or awkward objects Bending, stooping, crouching Cramped working conditions Inadequate lighting Poor workstation design Inadequate ventilation Repetitive tasks Poorly designed tools or equipment	Psychological Hazards Stress Shiftwork Workload - Fatigue Dealing with aggressive/threatening persons Harassment & bullying Discrimination
Organisational Hazards Inadequate procedures Inadequate maintenance schedules Organisation and resources Inadequate training Inadequate communication Inadequate consultation	Behavioural Hazards Putting body "in line of fire"; Not keeping "eyes on path" Not keeping "eyes on hands" Intentionally not complying with procedures Not wearing appropriate PPE