

PLANT HAZARD IDENTIFICATION & RISK ASSESSMENT



RISK MATRIX

		Consequence				
		Minor	Significant	Serious	Critical	Disastrous
Probability	Almost certain	CAT 3 110	CAT 2 160	CAT 1 200	CAT 1 230	CAT 1 250
	Good chance	CAT 4 70	CAT 3 120	CAT 2 170	CAT 1 210	CAT 1 240
	Likely	CAT 4 70	CAT 3 120	CAT 3 170	CAT 2 210	CAT 1 240
	Unlikely	CAT 4 70	CAT 4 120	CAT 3 170	CAT 2 210	CAT 2 240
	Extremely unlikely	CAT 4 10	CAT 4 30	CAT 4 60	CAT 3 100	CAT 2 150

Consequence		Likelihood	
Disastrous	Fatality or permanent serious disability. Extensive environmental damage. > \$250K property damage.	Almost certain	Is expected to occur in most circumstances.
Critical	Extensive injuries, permanent part disability. Major environmental damage. \$50,000-\$250,000 property damage.	Good chance	Would probably occur in most circumstances.
Serious	> 1week off normal duties. Moderate environmental damage. \$10,000-\$50,000 property damage.	Likely	Might occur at some time.
Significant	< 1 week off normal duties. Minor environmental damage. \$2,000-\$10,000 property damage.	Unlikely	Could occur at some time.
Minor	First aid injury. Negligible environmental damage. < \$2,000 property damage.	Extremely unlikely	Practically impossible.

PLANT DETAILS

Description
Make
Model
Plant / Serial number
Registration number

HIERARCHY OF CONTROL TABLE

The most desirable option The least desirable option	1. Elimination	EL	If you eliminate a hazard you completely eliminate the associated risk.
	2. Substitution	S	You can substitute something else (a substance or a process) that has less potential to cause injury.
	3. Isolation/engineering	EN	You can make a structural change to the work environment or work process to interrupt the path between the worker and the risk.
	4. Administrative	A	You may be able to reduce risk by upgrading training, changing rosters or other administrative actions.
	5. Personal protective	PPE	When you can't reduce the risk of injury in any other way, use personal protective equipment (gloves, goggles, etc.) as a last resort.

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Hazard type	Describe how and when (During operation, inspection, maintenance)	Consequence (Seriousness of injury)	Probability (How likely is an incident?)	Initial hazard rating	Recommended (implemented) controls (Must use Hierarchy of Control to determine most appropriate)	Residual hazard rating
Plant certification and registration Does this plant item require annual certification/registration with state regulators and or licenced persons to safely operate plant?						
Safe communication with plant operator Are there communication requirements for the safe operation of this plant item on site?						
Entanglement Can hair, clothing, gloves, become entangled or caught in moving parts of equipment? What guards, decals, engineering solutions etc. are available?						
Crushing Can persons be injured due to, unexpected movement(s), falling loads, plant uncontrolled movement like tipping, rolling or being thrown, contact with moving parts.						

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<p>Cutting, stabbing, puncturing Can persons be injured by contact with sharp objects, with moving parts, disintegration or ejection of equipment parts.</p>						
<p>Shearing Can persons be injured due to two moving parts of the equipment or becoming trapped between a fixed object and moving part.</p>						
<p>Friction, abrasion, tearing Can a person be injured from burns, abrasions etc. due to contact with moving parts or material.</p>						

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<p>Striking Can persons be injured due to being struck by uncontrolled movement(s), disintegration of moving pieces or ejection of equipment parts.</p>						
<p>High pressure fluid Can a person be injured from exposure to fluids under pressure due to plant failure or misuse.</p>						
<p>Electrical Can a person be injured due to contact with live wires (overhead) or loose wires in equipment, overload of circuits, damaged or poorly maintained equipment, exposed to environmental elements.</p>						

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<p>Explosion</p> <p>Is the plant item required to work in an intrinsically safe working environment away from ignition sources or hot spots? Will the item of plant be exposed to gases or other substances during operation?</p>						
<p>Slipping, tripping, falls</p> <p>Can a person be injured either accessing or leaving the plant items because of ladders, steps, slippery surfaces, or awkward access points?</p>						
<p>Ergonomic factors</p> <p>Poorly designed seating, repetitive body movement, poor body posture required to operate or maintain equipment, excessive effort, poor lighting. Poorly located switches, hard to understand control decals?</p>						
<p>Suffocation</p> <p>Can injuries occur as a result of operating this item of plant in poorly ventilated or confined/restricted work spaces due to the creation of dusts, vapours, fumes or removal of oxygen?</p>						

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<p>High temperature or fire Can injuries or plant failure occur due to generation of high temperatures or the possibility of fire? Does operating the item expose persons to thermal ranges beyond safe operating levels resulting in heat exhaustion and or heat stroke.</p>						
<p>Plant transportation Can injuries or load failures occur due to lack of designated lifting points or easy to access tie down points for ease of transport using either slings or pallets. Will plant movement require specialised skills and risk assessment for safe load movements.</p>						
<p>Loss of power or operational performance Does the plant item have fail safe systems in the event of a power failure to safely stop and control the plant item?</p>						
<p>Adverse weather effect safe performance of plant Can adverse weather conditions affect the safe operation of this plant item and or reduce its capability to perform tasks.</p>						

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<p>Vibration</p> <p>Can injuries to persons or damage to the surrounding environment occur as a result of excessive vibration, or does the operation of the plant create excessive gyroscopic forces.</p>						
<p>Dust generation</p> <p>Does the normal operation of this plant item create dusts either silica, or general nuisance dusts which can be localised or extend into other work areas?</p>						
<p>Radiation</p> <p>Does the normal operation of this plant item use lasers with a class 2-4 or generate ionising radiation.</p>						
<p>Isolation and lock out</p> <p>Does the safe operation of this plant item require the isolation of energy sources at any time during its operation. Start up or shut down procedures?</p>						
<p>Plant item stability</p> <p>Does the safe operation of this plant item require the use of plant stabilisers, firm ground conditions?</p>						

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External environmental risks Does the safe operation of this plant item require additional assessment of the external environment to prevent damage to plant or injuries to personnel?						
Safety features associated with this plant item Ensure operators familiarise themselves with the safety features associated with this item of plant i.e. safety stops, isolation switches, seat belts, reversing squawkers, anti roll devices.						
Noise Does the normal operation of this plant item exceed 85db? Are there specific safety features that generate high noise levels, eg. squawkers, etc.						
Miscellaneous hazards Are there any other hazards specified by the manufacturer in the Operator's Manual, that requires knowledge by operators? Are there any specific hazards generated when this plant item is used with other attachments or other items?						

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Always follow the manufacturer's operators manual instructions and conduct a site specific risk assessment. The above information can only be general in nature and used as a guide if the hirer uses this item of equipment for the purpose intended by the manufacturer.

Under common law and relevant New Zealand and Australian state and territory health and safety acts, regulations and codes of practice, there is a requirement for the plant owner, employer and operator to exercise a duty of care in the safe operation and maintenance of plant. Accordingly before this item of plant is supplied to, or used at any workplace it must be inspected to ensure it is in a fully operational, safe and serviceable condition and that operators and maintenance personnel are appropriately trained in the use and maintenance of this item of plant.

This item of plant should be further assessed, tested and inspected or dismantled as necessary to gauge any further hazards and/or risks relating to **specific workplace use**, which are currently unknown, in accordance with relevant standards, regulations and acts.

Name of person/s conducting risk assessment	Date
This risk assessment has been reviewed and deemed to be relevant and current. Name of person/s	Date



Please Call or SMS
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Availability or to Book.

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