


# SAFETY MANAGEMENT SYSTEM

## Plant and Equipment Risk Assessment

<b>Equipment Location:</b>	<b>Hired From All Master Hire Stores</b>	<b>Equipment:</b>	<b>Generator - Diesel</b>	<b>Assessed By:</b>	<b>Steven Jose</b>
				<b>Signature:</b>	
		<b>Manufacturer Details</b>	<b>Make: Various</b>		

Hazard	Action Required Yes/No	Risk Level (Refer to risk matrix)	Hierarchy of Control	Hazard and Risk Treatment (Complete Hazard Report Form)	Risk Level after Risk Treatment (Refer to risk matrix)
<b>Entanglement</b>					
Can anyone's hair, clothing, gloves, necktie, jewellery, cleaning brushes, rags or other materials become entangled with moving parts of the plant, or materials in motion?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Observe all safety instructions in owners' manual</i> <i>Wear appropriate PPE</i> <i>Check area is clear before starting machine</i>	MEDIUM
<b>Crushing</b>					
Can anyone be crushed due to: <ul style="list-style-type: none"> <li>▪ Material falling off the plant?</li> <li>▪ Uncontrolled or unexpected movement of the plant or its load?</li> <li>▪ Lack of capacity for the plant to be slowed, stopped or immobilized?</li> <li>▪ The plant tipping or rolling over?</li> <li>▪ Parts of the plant collapsing?</li> <li>▪ Coming in contact with moving parts of the plant during testing, inspection, use, maintenance, cleaning or repair?</li> <li>▪ Being thrown off or under the plant?</li> <li>▪ Being trapped between the plant and materials or fixed structures?</li> <li>• Other factors?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Observe all safety instructions in owners' manual</i> <i>Wear appropriate PPE</i> <i>Check area is clear before starting machine</i> <i>Do not remove guards or operate with doors open</i> <i>Stop engine before conducting maintenance</i> <i>Keep body parts away from rotating parts</i>	MEDIUM
<b>Cutting, Stabbing and Puncturing</b>					
Can anyone be cut, stabbed or punctured due to: <ul style="list-style-type: none"> <li>▪ Coming in contact with sharp or flying objects?</li> <li>▪ Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair of the plant?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Observe all safety instructions in owners' manual</i> <i>Wear appropriate PPE</i> <i>Check area is clear before starting machine</i>	MEDIUM

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## Plant and Equipment Risk Assessment

<ul style="list-style-type: none"> <li>▪ Plant, parts of the plant or work pieces disintegrating?</li> <li>▪ Work pieces being ejected?</li> <li>▪ The mobility of the plant?</li> <li>▪ Uncontrolled or unexpected movement of the plant?</li> <li>▪ Other factors?</li> </ul>				<p><i>Do not remove guards or operate with doors open</i></p> <p><i>Stop engine before conducting maintenance</i></p> <p><i>Keep body parts away from rotating parts</i></p>	
<b>Shearing</b>					
<p>Can anyone's body parts be:</p> <ul style="list-style-type: none"> <li>▪ Sheared between two or more parts of the plant, or between a part of the plant and a work piece or structure?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p> <p><i>Do not remove guards or operate with doors open</i></p> <p><i>Stop engine before conducting maintenance</i></p> <p><i>Keep body parts away from rotating parts</i></p>	<b>MEDIUM</b>
<b>Friction</b>					
<p>Can anyone be burnt, gain abrasions etc due to:</p> <ul style="list-style-type: none"> <li>▪ Contact with moving parts or surfaces of the plant, or material handled by the plant?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p> <p><i>Do not remove guards or operate with doors open</i></p> <p><i>Stop engine before conducting maintenance</i></p> <p><i>Keep body parts away from rotating parts</i></p>	<b>LOW</b>
<b>Striking</b>					
<p>Can anyone be struck by moving objects due to:</p> <ul style="list-style-type: none"> <li>▪ Uncontrolled or unexpected movement of the plant or material handled by the plant?</li> <li>▪ Plant, parts of the plant or work pieces disintegrating?</li> <li>▪ Work pieces being ejected?</li> <li>▪ Mobility of the plant?</li> <li>▪ Other factors?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>LOW</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p>	<b>LOW</b>

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<b>High Pressure Fluid</b>					
Can anyone come into contact with? <ul style="list-style-type: none"> <li>▪ Fluids under high pressure in normal use, in the instance of plant failure?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input type="checkbox"/> Administration <input type="checkbox"/> PPE	Observe all safety instructions in owners' manual Wear appropriate PPE	<b>MEDIUM</b>
<b>Electrical</b>					
Can anyone be injured by electrical shock or burnt due to: <ul style="list-style-type: none"> <li>▪ The plant contacting live electrical conductors?</li> <li>▪ Plant working close to electrical conductors?</li> <li>▪ Overload of electrical circuits?</li> <li>▪ Damaged or poorly maintenance electrical leads or cables?</li> <li>▪ Damaged electrical switches?</li> <li>▪ Water near electrical equipment?</li> <li>▪ Lack of isolation procedures?</li> <li>▪ Other factors</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>HIGH</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input type="checkbox"/> Administration <input type="checkbox"/> PPE	Observe all safety instructions in owners' manual Wear appropriate PPE Check area is clear before starting machine Only qualified electrical personnel to conduct electrical work or repairs on machine	<b>HIGH</b>
<b>Explosion</b>					
Gases, vapors, liquids, dusts or other substances triggered by the operation of the plant or by materials handled by the plant?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	Observe all safety instructions in owners' manual Check pressure lines/systems are clear before conducting repairs or maintenance and correctly connected before starting machine Wear appropriate PPE	<b>MEDIUM</b>
<b>Slipping, tripping and Falling</b>					
Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to: <ul style="list-style-type: none"> <li>▪ Uneven or slippery work surfaces?</li> <li>▪ Poor housekeeping, such as shavings in the vicinity of the plant, spillage not cleaned up?</li> <li>▪ Obstacles being placed in the vicinity of the plant?</li> <li>▪ Other factors?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>LOW</b>	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	Observe all safety instructions in owners' manual Wear appropriate PPE Check area is clear before starting machine	<b>LOW</b>
<b>High Temperature</b>					

## Plant and Equipment Risk Assessment

<p>Can anyone:</p> <ul style="list-style-type: none"> <li>▪ Come into contact with objects at high temperature?</li> <li>▪ Be injured by fire?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p>	<b>MEDIUM</b>
<b>Temperature and Thermal Comfort</b>					
<p>Can anyone suffer ill-health due to:</p> <ul style="list-style-type: none"> <li>▪ Exposure to high or low temperatures?</li> <li>▪ Failure of air conditioning equipment?</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input type="checkbox"/> Administration <input type="checkbox"/> PPE		
<b>Suffocation</b>					
<ul style="list-style-type: none"> <li>▪ Can anyone be suffocated due to:</li> <li>▪ Lack of oxygen, or atmospheric contamination?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>HIGH</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input type="checkbox"/> Administration <input type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p> <p><i>Use in well-ventilated area</i></p>	<b>HIGH</b>
<b>Ergonomics</b>					
<p>Can anyone be injured due to:</p> <ul style="list-style-type: none"> <li>▪ Poorly designed seating?</li> <li>▪ Repetitive body movements?</li> <li>▪ Constrained body posture or the need for excessive effort?</li> <li>▪ Design deficiency causing physical or personal stress?</li> <li>▪ Inadequate or poorly placed lighting?</li> <li>▪ Lack of consideration given to human error or human behavior?</li> <li>▪ Mismatch of the plant with human traits and natural limitations?</li> <li>▪ Other factors?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>LOW</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p>	<b>LOW</b>
<b>Other Hazards</b>					

<p>Can anyone be injured or suffer ill-health from exposure to:</p> <ul style="list-style-type: none"> <li>• Chemicals?</li> <li>• Toxic gases or vapors?</li> <li>• Fumes?</li> <li>• Dust?</li> <li>• Noise?</li> <li>• Vibration?</li> <li>• Radiation?</li> <li>• Other Factors?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<p><i>Observe all safety instructions in owners' manual</i></p> <p><i>Wear appropriate PPE</i></p> <p><i>Check area is clear before starting machine</i></p> <p><i>Use in well-ventilated area</i></p>	<b>MEDIUM</b>
<b>Further Comments:</b>	<p><b>A Specific Risk Assessment on site must be undertaken prior to plant operation?</b></p> <hr/> <hr/> <hr/>				
<b>Checklist:</b>	<input type="checkbox"/> Hazard Report form for discrepancies reported <input checked="" type="checkbox"/> Copy kept on Risk Management File				

### Hazard / Risk Matrix

Reference:

**Legislation** - Workplace Health and Safety Act – Queensland (14/09/2020)

**Australian Standards** - AS3012-2019 – Electrical Installations – Construction & Demolition Sites

**Codes of Practice** - How to manage work health and safety risks (SWA 2021); Managing Electrical Risks in the Workplace – 2021, Confined Spaces 2021

**Step 1 Determine Likelihood – What is the possibility of the event happening?**

	Criteria	Description
<b>Almost certain</b>	Expected in most circumstances.	Event is a common problem
<b>Likely</b>	Will probably occur in most circumstances.	Event is known to have occurred at this site or it has happened
<b>Possible</b>	Might occur at some time	Event could occur at the site or I've heard of it happening
<b>Unlikely</b>	Could occur at some time	Event is not likely to occur at the site or I have not heard of it happening
<b>Rare</b>	May occur only in exceptional circumstances	Event is practically impossible.

**Step 2 Determine Consequence - What will be the result if it happens?**

Classification	Example detail description
<b>Insignificant</b>	No injuries
<b>Minor</b>	First aid treatment only; spillage contained at site.
<b>Moderate</b>	Medical treatment; spillage contained but with outside help.
<b>Major</b>	Extensive injuries; loss of production
<b>Catastrophic</b>	Death; toxic release of chemicals

**Step 3 Determine the risk score**

LIKELIHOOD	CONSEQUENCE				
	Insignificant	Minor	Moderate	Major	Catastrophic
<b>Almost certain</b>	<b>3 High</b>	<b>3 High</b>	<b>4 Acute</b>	<b>4 Acute</b>	<b>4 Acute</b>
<b>Likely</b>	<b>2 Medium</b>	<b>3 High</b>	<b>3 High</b>	<b>4 Acute</b>	<b>4 Acute</b>
<b>Possible</b>	<b>1 Low</b>	<b>2 Medium</b>	<b>3 High</b>	<b>4 Acute</b>	<b>4 Acute</b>
<b>Unlikely</b>	<b>1 Low</b>	<b>1 Low</b>	<b>2 Medium</b>	<b>3 High</b>	<b>4 Acute</b>
<b>Rare</b>	<b>1 Low</b>	<b>1 Low</b>	<b>2 Medium</b>	<b>3 High</b>	<b>3 High</b>

**Step 4 Record risk score against the job sequence steps**

(Note – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)

Score	Action
<b>4</b> <b>A: Acute</b>	<b>ACT NOW – Urgent – do something about the risks immediately. Requires immediate attention.</b>
<b>3</b> <b>H: High</b>	<b>Highest management decision is required urgently.</b>
<b>2</b> <b>M: Medium</b>	<b>Follow management instructions.</b>
<b>1</b> <b>L: Low</b>	<b>OK for now. Record and review if any equipment/ people/ materials/ work processes or procedures change.</b>