


# SAFETY MANAGEMENT SYSTEM

## Plant and Equipment Risk Assessment

<b>Equipment Location:</b>	<b>Hired From All Master Hire Stores</b>	<b>Equipment:</b>	<b>Props – All Sizes</b>		<b>Approved By:</b>	<b>Steven Jose</b>
					<b>Signature:</b>	
		<b>Manufacturer Details</b>	<b>Various</b>			
<b>Hazard</b>		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	LOW	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions Obey all warning decals Keep clear of adjusting thread and pin</i>	LOW
<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	HIGH	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions Obey all warning decals Ensure plant is operated on a flat, solid stable surface (may need to be load rated – check with engineer) Ensure exclusion zone is set up correctly and free of intruders Only authorised and experienced personnel to enter area of set up and suspended area if safe to do so Do not exceed Safe Work Load of plant</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> <li>▪ Plant, parts of the plant or work pieces disintegrating?</li> <li>▪ Work pieces being ejected?</li> </ul>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	MEDIUM	<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	<i>Follow manufacturers' instructions Obey all warning decals Ensure plant is operated on a flat, solid stable surface (may need to be load rated – check with engineer) Ensure exclusion zone is set up and free of intruders</i>	LOW

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## Plant and Equipment Risk Assessment

<ul style="list-style-type: none"> <li>▪ The mobility of the plant?</li> <li>▪ Uncontrolled or unexpected movement of the plant?</li> <li>▪ Other factors?</li> </ul>				<i>Do not exceed Safe Work Load of plant</i>	
<b>Shearing</b>					
Can anyone's body parts be: <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>HIGH</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions          Obey all warning decals          Keep body parts outside moving parts areas</i>	<b>MEDIUM</b>
<b>Friction</b>					
Can anyone be burnt, gain abrasions etc. due to: <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 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>Striking</b>					
Can anyone be struck by moving objects due to: <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>MEDIUM</b>	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions          Obey all warning decals          Use appropriate prop/s to support elevated mechanisms when conducting inspection or maintenance          Secure/restrain while transporting          Ensure exclusion zone in and around vehicle while being loaded          Ensure stability of load          Ensure surface is stable and flat</i>	<b>LOW</b>
<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 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>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> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>HIGH</b>	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input checked="" type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions          Obey all warning decals          Ensure all overhead/underground wiring or other obstructions have been located prior to commencing work          Do not place surface of prop over/under electrical cabling/ plumbing or the like</i>	<b>MEDIUM</b>

# SAFETY MANAGEMENT SYSTEM

## Plant and Equipment Risk Assessment

<ul style="list-style-type: none"> <li>▪ Lack of isolation procedures?</li> <li>▪ Other factors</li> </ul>					
<b>Explosion</b>					
Can anyone be injured by fuels such as gases, vapors, liquids, dusts or other substances being ignited triggered by the operation of the plant or by materials handled by the plant?	<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>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>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	<i>Follow manufacturers' instructions            Obey all warning decals            Wear appropriate footwear            Maintain cleanliness of plant (inside and out)            Ensure all loads and props are stable and attached securely</i>	<b>LOW</b>
<b>High Temperature</b>					
Can anyone: <ul style="list-style-type: none"> <li>▪ Come into contact with objects at high temperature?</li> <li>▪ Come into contact with hot fluids?</li> <li>▪ Be injured by fire?</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>Temperature and Thermal Comfort</b>					
Can anyone suffer ill-health due to: <ul style="list-style-type: none"> <li>▪ Exposure to high or low temperatures?</li> <li>▪ Failure of air conditioning equipment?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>MEDIUM</b>	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions            Obey all warning decals            Be aware of body responses to adverse/extreme weather conditions (hot/cold)</i>	<b>LOW</b>
<b>Suffocation</b>					
Can anyone be suffocated due to: <ul style="list-style-type: none"> <li>▪ Lack of oxygen, or atmospheric contamination?</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" 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>Follow manufacturers' instructions            Obey all warning decals            Do not leave persons or animals unattended in confined space            Position and operate in well-ventilated area to prevent inhaling vapours or fumes</i>	

## Plant and Equipment Risk Assessment

<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 checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Take regular breaks/rests</i></p> <p><i>Exercise/stretch regularly</i></p> <p><i>Use suitably designed and secured loading/unloading procedures including crane, hoist, ramps etc.</i></p>	<b>LOW</b>
<b>Transportation</b>					
<p>Can anyone be injured by this equipment falling or driven off vehicle or trailer while loading, unloading or transportation?</p>	<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 type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Ensure equipment, attachments and sundry items are securely tied down</i></p> <p><i>Apply/use chocks if necessary</i></p> <p><i>Maintain vehicle and/or equipment in good working order - report any malfunction or damage to Master Hire immediately and stop using plant/vehicle where it is reasonable to foresee further risk to persons or damage to plant/vehicle</i></p>	<b>LOW</b>
<b>Operational</b>					
<p>Can anyone be injured by this equipment</p>	<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	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Ensure plant/equipment is on stable ground and clear of obstructions</i></p> <p><i>Ensure adequate ventilation</i></p> <p><i>Ensure all guards and fixtures are in place</i></p> <p><i>Ensure appropriate PPEs are used (e.g. eye protection, hearing and footwear)</i></p> <p><i>Ensure hold-to-run controls provided for machine are working properly</i></p>	<b>LOW</b>

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				<p><i>Do not operate on steep slope/angles</i>  <i>Ensure handles and other adjustable parts are set right for the operator</i>  <i>Ensure guards cover the entire width of the rotating parts</i></p>
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<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		<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	<p><i>Follow manufacturers' instructions</i>  <i>Obey all warning decals</i>  <i>Position and operate in well-ventilated area to prevent inhaling vapours or fumes</i>  <i>Check for overhead/underground utilities (gas, water, electrical) before operation</i>  <i>Ensure equipment is appropriately labeled and meet the relevant State Legislative requirements</i>  <i>Maintain plant/vehicle in good working order - report any malfunction or damage to Master Hire immediately and stop using plant/vehicle where it is reasonable to foresee further risk to persons or damage to equipment</i>  <i>Ensure appropriate PPEs are used (e.g. eye protection, hearing, head and footwear)</i></p>

<b>Further Comments:</b>	<p><b>A Specific Risk Assessment on site must be undertaken prior to plant operation.</b></p> <p><b>This equipment must only be driven/operated by competent persons and holders of the appropriate license</b></p>
<b>Checklist:</b>	<input checked="" type="checkbox"/> <i>Manufacturers' manuals referenced</i> <input checked="" type="checkbox"/> <i>Copy kept in Master Hires' Risk Management File</i>

### Hazard / Risk Matrix

Reference: Workplace Health and Safety Queensland - Risk Assessment - Supplement 2  
Risk Management Code of Practice 2007

**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>	3 High	3 High	4 Acute	4 Acute	4 Acute
<b>Likely</b>	2 Medium	3 High	3 High	4 Acute	4 Acute
<b>Possible</b>	1 Low	2 Medium	3 High	4 Acute	4 Acute
<b>Unlikely</b>	1 Low	1 Low	2 Medium	3 High	4 Acute
<b>Rare</b>	1 Low	1 Low	2 Medium	3 High	3 High

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