

SAFETY MANAGEMENT SYSTEM

Plant and Equipment Risk Assessment

Equipment Location:	Hired From All Master Hire Stores	Equipment:	Diesel Air Compressor		Approved By:	Steven Jose
					Signature:	
		Manufacturer Details	Various			
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)	
Entanglement						
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 checked="" 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>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Wear appropriate clothing</i> <i>Ensure plant is switched off before doing any maintenance</i> <i>If machine must be running whilst doing maintenance, do not lean or reach into engine area where there are rotating or hot components</i> <i>Ensure belt guards are in place and operate correctly</i>	LOW	
Crushing						
Can anyone be crushed due to: <ul style="list-style-type: none"> ▪ Material falling off the plant? ▪ Uncontrolled or unexpected movement of the plant or its load? ▪ Lack of capacity for the plant to be slowed, stopped or immobilized? ▪ The plant tipping or rolling over? ▪ Parts of the plant collapsing? ▪ Coming in contact with moving parts of the plant during testing, inspection, use, maintenance, cleaning or repair? ▪ Being thrown off or under the plant? ▪ Being trapped between the plant and materials or fixed structures? • Other factors? 	<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 type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Ensure all towing and support arrangements are engaged correctly and on firm ground</i> <i>Take care when coupling plant to a towing vehicle</i> <i>Ensure correct lifting equipment and lifting points are used when moving plant</i> <i>Ensure all persons are clear of the area when unit is being moved / transported or coupled to a towing vehicle.</i>	LOW	

Plant and Equipment Risk Assessment

Cutting, Stabbing and Puncturing					
<p>Can anyone be cut, stabbed or punctured due to?</p> <ul style="list-style-type: none"> ▪ Coming in contact with sharp or flying objects? ▪ Coming in contact with moving parts of the plant during testing, inspection, operation, maintenance, cleaning or repair of the plant? ▪ Plant, parts of the plant or work pieces disintegrating? ▪ Work pieces being ejected? ▪ The mobility of the plant? ▪ Uncontrolled or unexpected movement of the plant? ▪ Other factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<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>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Ensure all guards and fixtures are in place and operate correctly</i></p> <p><i>Ensure guards cover the entire width of rotating parts</i></p> <p><i>Ensure appropriate PPE is used (e.g. eye protection, hearing and footwear)</i></p>	LOW
Shearing					
<p>Can anyone's body parts be:</p> <ul style="list-style-type: none"> ▪ Sheared between two or more parts of the plant, or between a part of the plant and a work piece or structure? 	<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		
Friction					
<p>Can anyone be burnt, gain abrasions etc. due to:</p> <ul style="list-style-type: none"> ▪ Contact with moving parts or surfaces of the plant, or material handled by the plant? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<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	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Do not lean or reach into engine area with motor running</i></p> <p><i>If machine must be running whilst doing maintenance, do not lean or reach into engine area where there are rotating or hot components</i></p> <p><i>Ensure all guards and fixtures are in place and operate correctly</i></p>	LOW
Striking					
<p>Can anyone be struck by moving objects due to:</p> <ul style="list-style-type: none"> ▪ Uncontrolled or unexpected movement of the plant or material handled by the plant? ▪ Plant, parts of the plant or work pieces disintegrating? ▪ Work pieces being ejected? ▪ Mobility of the plant? ▪ Other factors? 	<input checked="" type="checkbox"/> Yes <input 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 type="checkbox"/> PPE	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Use appropriate prop/s to support elevated mechanisms when conducting inspection or maintenance</i></p> <p><i>Ensure travel of moving plant/vehicle (forward or reversing) is free of all personnel</i></p> <p><i>Use spotter in restricted areas</i></p> <p><i>Ensure all loads are placed and</i></p>	LOW

				<i>secured within tray of vehicle while transporting e.g. hoses, tools, moils</i> <i>Ensure exclusion zone in and around vehicle while loaded using mechanical aids (e.g. skid steer loader, excavator)</i> <i>Take care when coupling plant to a towing vehicle</i> <i>Ensure all persons are clear of the area when a unit is being moved / transported or coupled to a towing vehicle.</i> <i>Ensure correct lifting equipment and lifting points are used when moving plant</i>	
High Pressure Fluid					
Can anyone come into contact with? <ul style="list-style-type: none"> ▪ Fluids under high pressure in normal use, in the instance of plant failure? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<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</i> <i>Obey all warning decals</i> <i>Ensure all protective covers are in place and safety devices are working</i> <i>Wear appropriate PPE</i>	LOW
Electrical					
Can anyone be injured by electrical shock or burnt due to: <ul style="list-style-type: none"> ▪ The plant contacting live electrical conductors? ▪ Plant working close to electrical conductors? ▪ Overload of electrical circuits? ▪ Damaged or poorly maintenance electrical leads or cables? ▪ Damaged electrical switches? ▪ Water near electrical equipment? ▪ Lack of isolation procedures? ▪ Other factors 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<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	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Have power disconnected before loading or unloading where wiring may be contacted</i> <i>Ensure cabinet enclosing electricals is in place and intact</i> <i>Ensure electricals are maintained and always checked by a qualified electrician</i>	LOW
Explosion					
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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input type="checkbox"/> Administration <input type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Ensure safety devices e.g. safety valve and motor overload are fitted and working to minimise pressure buildup</i>	LOW

Slipping, tripping and Falling					
<p>Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to:</p> <ul style="list-style-type: none"> ▪ Uneven or slippery work surfaces? ▪ Poor housekeeping, such as shavings in the vicinity of the plant, spillage not cleaned up? ▪ Obstacles being placed in the vicinity of the plant? ▪ Other factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input checked="" type="checkbox"/> Engineering <input type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<i>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Wear appropriate footwear</i> <i>Check regularly for oil leaks and ensure o-rings are in place and secure</i>	LOW
High Temperature					
<p>Can anyone:</p> <ul style="list-style-type: none"> ▪ Come into contact with objects at high temperature? ▪ Come into contact with hot fluids? ▪ Be injured by fire? 	<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>Follow manufacturers' instructions</i> <i>Obey all warning decals</i> <i>Ensure all guards are in place that protect hot surfaces</i> <i>Allow motor and other components to cool before servicing</i> <i>Wear appropriate PPE</i>	LOW
Temperature and Thermal Comfort					
<p>Can anyone suffer ill-health due to:</p> <ul style="list-style-type: none"> ▪ Exposure to high or low temperatures? ▪ Failure of air conditioning equipment? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<input 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</i> <i>Obey all warning decals</i> <i>Be aware of body responses to adverse/extreme weather conditions (hot/cold)</i>	LOW
Suffocation					
<p>Can anyone be suffocated due to:</p> <ul style="list-style-type: none"> ▪ Lack of oxygen, or atmospheric contamination? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<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	<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>	LOW

Ergonomics				
<p>Can anyone be injured due to:</p> <ul style="list-style-type: none"> ▪ Poorly designed seating? ▪ Repetitive body movements? ▪ Constrained body posture or the need for excessive effort? ▪ Design deficiency causing physical or personal stress? ▪ Inadequate or poorly placed lighting? ▪ Lack of consideration given to human error or human behavior? ▪ Mismatch of the plant with human traits and natural limitations? ▪ Other factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<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>Do not operate beyond operators personal capabilities</i></p> <p><i>Use suitably designed and secured loading/unloading procedures including crane, hoist, ramps etc.</i></p> <p><i>Observe and use proper manual handling techniques</i></p>
Transportation				
<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	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	<p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Take care when coupling plant to a vehicle</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>Ensure liquids are prevented from spillage</i></p> <p><i>Ensure all persons are clear of the area when a unit is being moved / transported or coupled to a towing vehicle</i></p> <p><i>Ensure appropriate footwear is worn</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>

Operational					
<p>Can anyone be injured by this equipment</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<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>Position and operate in well-ventilated area to prevent inhaling vapours or fumes</i></p> <p><i>Ensure gears, levers, switches etc. are engaged/disengaged appropriately before starting/operating</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 plant/vehicle is switched off before making any adjustments</i></p> <p><i>Ensure hold-to-run controls provided for machine are working properly</i></p> <p><i>Do not operate on steep slope</i></p> <p><i>Ensure handles and other adjustable parts are set right for the operator</i></p> <p><i>Ensure guards cover the entire width of the rotating parts</i></p>	LOW
<p>Other Hazards</p> <p>Can anyone be injured or suffer ill-health from exposure to:</p> <ul style="list-style-type: none"> • Chemicals? • Toxic gases or vapors? • Fumes? • Dust? • Noise? • Vibration? • Radiation? • Other Factors? 	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<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>Position and operate in well-ventilated area to prevent inhaling vapours or fumes</i></p> <p><i>Ensure sound cabinet is in place</i></p> <p><i>Wear appropriate PPE e.g. ear protection</i></p> <p><i>Ensure equipment is appropriately labeled and meet the relevant State Legislative requirements</i></p> <p><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</i></p>	LOW

				<i>damage to equipment</i>	
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Further Comments:	A Specific Risk Assessment on site must been undertaken prior to plant operation?
	This equipment must only be driven/operated by competent persons and holders of the appropriate license
Checklist:	<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
Almost certain	Expected in most circumstances.	Event is a common problem
Likely	Will probably occur in most circumstances.	Event is known to have occurred at this site or it has happened
Possible	Might occur at some time	Event could occur at the site or I've heard of it happening
Unlikely	Could occur at some time	Event is not likely to occur at the site or I have not heard of it happening
Rare	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
Insignificant	No injuries
Minor	First aid treatment only; spillage contained at site.
Moderate	Medical treatment; spillage contained but with outside help.
Major	Extensive injuries; loss of production
Catastrophic	Death; toxic release of chemicals

Step 3 Determine the risk score

LIKELIHOOD	CONSEQUENCE				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain	3 High	3 High	4 Acute	4 Acute	4 Acute
Likely	2 Medium	3 High	3 High	4 Acute	4 Acute
Possible	1 Low	2 Medium	3 High	4 Acute	4 Acute
Unlikely	1 Low	1 Low	2 Medium	3 High	4 Acute
Rare	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
4 A: Acute	ACT NOW – Urgent – do something about the risks immediately. Requires immediate attention.
3 H: High	Highest management decision is required urgently.
2 M: Medium	Follow management instructions.
1 L: Low	OK for now. Record and review if any equipment/ people/ materials/ work processes or procedures change.