


# SAFETY MANAGEMENT SYSTEM

## Plant and Equipment Risk Assessment

Equipment Location:	Hired From All Master Hire Stores	Equipment:	Vacuum Cleaner – H Class Automatic PortaVac		Approved By:	Ben Pooley
			Manufacturer Details	Dry	Signature:	
		Flextool				
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 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>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 type="checkbox"/> Yes <input checked="" 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	<ul style="list-style-type: none"> <li>Lock castor wheels during operation and storage to prevent unwanted movement.</li> <li>Always operate and store the dust collector on stable and even ground.</li> <li>Only trained operators are allowed to operate the equipment.</li> <li>Develop a Safe Work Method Statement for the operation of the equipment.</li> </ul>	LOW
<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> </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		

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<ul style="list-style-type: none"> <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>					
<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 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>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	LOW	<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	<ul style="list-style-type: none"> <li>Lock castor wheels during operation and storage to prevent unwanted movement.</li> <li>Always operate and store the dust collector on stable and even ground.</li> <li>Only trained operators are allowed to operate the equipment.</li> <li>Develop a Safe Work Method Statement for the operation of the equipment.</li> </ul>	LOW
<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</li> </ul>	<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 type="checkbox"/> Engineering <input checked="" type="checkbox"/> Administration <input type="checkbox"/> PPE	<ul style="list-style-type: none"> <li>Follow manufacturers' instructions.</li> <li>Obey all warning decals.</li> <li>ALWAYS inspect power leads and cables for damage (cuts and abrasions, exposed wires,</li> </ul>	LOW

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<p>cables?</p> <ul style="list-style-type: none"> <li>▪ Damaged electrical switches?</li> <li>▪ Water near electrical equipment?</li> <li>▪ Lack of isolation procedures?</li> <li>▪ Other factors</li> </ul>				<p><i>damaged plugs, etc.) prior to and periodically during operation. If damaged cables are identified, isolate equipment and have it repaired immediately by a licenced electrician.</i></p> <ul style="list-style-type: none"> <li>• ALWAYS fully uncoil electrical leads during operation.</li> <li>• ALWAYS inspect electrical switches for damage and correct operation.</li> <li>• Never allow exposure of the dust collector to water.</li> <li>• Ensure TNT is current.</li> <li>• Ensure exclusion zone in and around area of work.</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 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 checked="" type="checkbox"/> PPE	<ul style="list-style-type: none"> <li>• Follow manufacturers' instructions.</li> <li>• Obey all warning decals.</li> <li>• P2 Dust mask and safety glasses must be worn during operation and maintenance.</li> <li>• ALWAYS ensure hoses, bagging system and other accessories are fitted correctly.</li> <li>• ALWAYS ensure filters are fitted correctly and in good operating condition.</li> <li>• Empty bags regularly and don't overfill.</li> <li>• Replace damaged or missing warning decals that relate to dust exposure.</li> <li>• Do not operate in areas where flammables are present.</li> </ul>	LOW
<b>Slipping, tripping and Falling</b>					
Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	MEDIUM	<input type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation	<ul style="list-style-type: none"> <li>• Follow manufacturers' instructions.</li> <li>• Obey all warning decals.</li> </ul>	LOW

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<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"/> Engineering <input checked="" type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<ul style="list-style-type: none"> <li>• <i>Wear PPE (e.g. steel cap boots).</i></li> <li>• <i>Lock castor wheels during operation and storage to prevent unwanted movement.</i></li> <li>• <i>Never operate equipment with damaged, broken or missing guards.</i></li> <li>• <i>Take regular breaks if the task entails long duration time.</i></li> <li>• <i>Undertake task during times of low pedestrian traffic.</i></li> <li>• <i>Operator to inspect work environment for hazards prior to commencing work.</i></li> <li>• <i>Assess work area prior to operating equipment, always operate and store the dust collector on stable and even ground.</i></li> <li>• <i>Maintain good housekeeping of hoses and power cables, these can create a tripping hazard.</i></li> <li>• <i>Keep pathways and walk clear.</i></li> </ul>	
<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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	LOW	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<ul style="list-style-type: none"> <li>• <i>Follow manufacturers' instructions.</i></li> <li>• <i>Obey all warning decals.</i></li> <li>• <i>Do not touch electric motors that generate heat during or immediately after operation.</i></li> <li>• <i>Wait for electric motors and equipment to completely cool down prior to commencing repairs or maintenance.</i></li> <li>• <i>Be aware of body responses to adverse/ extreme weather conditions (hot/cold).</i></li> <li>• <i>Wear appropriate clothing.</i></li> </ul>	LOW
<b>Temperature and Thermal Comfort</b>					

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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	LOW	<input checked="" type="checkbox"/> Elimination <input type="checkbox"/> Substitution <input type="checkbox"/> Isolation <input type="checkbox"/> Engineering <input type="checkbox"/> Administration <input checked="" type="checkbox"/> PPE	<ul style="list-style-type: none"> <li>Follow manufacturers' instructions.</li> <li>Obey all warning decals.</li> <li>Be aware of body responses to adverse/ extreme weather conditions (hot/cold).</li> <li>Wear appropriate clothing.</li> </ul>	LOW
<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 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>Ergonomics</b>					
Can anyone be injured due to: <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	MEDIUM	<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	<ul style="list-style-type: none"> <li>Follow manufacturers' instructions.</li> <li>Regular inspection by competent person of loading ramps for damage or material fatigue.</li> <li>Never load or unload from transport vehicle with material in the bagging system, remove bagging system to reduce weight.</li> <li>Never drag or pull the dust collectors by the hose or power cord.</li> <li>Always follow correct manual handling techniques.</li> <li>Wearing of PPE (steel cap boots and gloves).</li> <li>Manual handling training.</li> </ul>	LOW

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### Transportation

Can anyone be injured by this equipment falling or driven off vehicle or trailer while loading, unloading or transportation?

☒ Yes  
☐ No

MEDIUM

☒ Elimination  
☐ Substitution  
☐ Isolation  
☐ Engineering  
☒ Administration  
☐ PPE

- Follow manufacturers' instructions.
- Obey all warning decals.
- Ensure all equipment is restraint according to the NVHR load restraint guidelines.
- Inspect straps and ropes for damage prior to use.
- Secure equipment using suitable tie down points on both equipment and vehicle.
- Lock castor wheels or lay equipment flat where possible during transport and storage to prevent unwanted movement.
- Ensure equipment, attachments and sundry items are securely tied down.
- 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.

LOW

### Operational

Can anyone be injured by this equipment

☒ Yes  
☐ No

LOW

☐ Elimination  
☐ Substitution  
☐ Isolation  
☒ Engineering  
☒ Administration  
☒ PPE

- Follow manufacturers' instructions.
- Obey all warning decals.
- Ensure plant/equipment is on stable ground.
- Complete service and maintenance as scheduled in the equipment owners' manuals.
- Complete a prestart checklist prior to use.
- Report faults to Master Hire for repair. Do not use unsafe equipment.
- Ensure appropriate PPEs are used

LOW

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				(e.g. protection for eyes, hearing and footwear). • Ensure plant/vehicle is switched off before making any adjustments.	
<b>Other Hazards</b>					
Can anyone be injured or suffer ill-health from exposure to: <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	LOW	<input checked="" 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	• Follow manufacturers' instructions. • Obey all warning decals. • Ensure appropriate clothing is worn. • Ensure equipment is appropriately labeled and meet the relevant State Legislative requirements. • Complete service and maintenance as scheduled in the equipment owners' manuals. • Wear PPE hearing protection. • Replace damaged or missing warning decals requiring the use of hearing protection. • 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 • Dispose of bag waste appropriately prior to transport, eliminating exposure to any collected containments. • Ensure work performed is within an area with adequate ventilation.	LOW

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"/> Manufacturers' manuals referenced <input checked="" type="checkbox"/> Copy kept in Master Hires' Risk Management File



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