RISK ASSESSMENT

Pre-Start Hazard Assessment (PHA) – Small Plant & Equipment Operation

Form Reference:	ISO-BMS-RA-036
Plant/Vehicle/Machine Type:	Pressure Washer, Air Compressor, Generator Sets, Plate Compactor, Fuel Trailers & Storage, Water Pumps & Stand Pipes, Solar Lighting Towers
Project/Location:	

Purpose & Scope: This Pre-Start Hazard Assessment (PHA) identifies the tasks, hazards, and required control measures for the safe operation of this vehicle across Consolidated Group of Companies (CG/CTS/JG) sites, including Pilbara mining and civil construction environments. It must be read, understood, and signed by every operator prior to first use, and reviewed whenever conditions, plant, or the system of work change.

ALL OPERATORS MUST SIGN BELOW TO ACKNOWLEDGE THEY HAVE READ AND UNDERSTOOD THIS PHA, AT LEAST ONCE, PRIOR TO THE OPERATION OF THIS MACHINE.

Name	Date	Time	Signature

Approval & Sign-Off

Supervisor/s Responsible for this Document:	
Full Name:	
Location/Project ID:	
Date:	
Signature:	

Follow-Up Review Triggers

Follow-up trigger – review this PHA on change to: use of plant, system of work, plant environment, new information, or plant modification.	Y	N
Is the plant designed to perform the task?	☐	☐
Has the plant been modified from the original condition?	☐	☐

Follow-up trigger – review this PHA on change to: use of plant, system of work, plant environment, new information, or plant modification.	Y	N
Is the plant in good working condition and free of leaks, damage, mud and vegetation build-up?	☐	☐
All identified action items closed out/addressed (plant checks)?	☐	☐
Is the plant safe to operate? (on completion of PHA and any action closures)	☐	☐

Task, Hazard & Control Assessment

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
PRE-START					
Operator competency & fitness for work	Unqualified, unlicensed, unfit, or fatigued operator	**H17**	• Operator holds current VOC (Verification of Competency) for this specific plant item and has completed site induction. • Fit for Work declaration completed; zero tolerance for alcohol and non-prescription drugs. • No operation while affected by fatigue, medication, drugs or alcohol - report to supervisor immediately if unfit.	**L4**	Operator
Pre-start inspection	Undetected plant defect leading to failure during operation	**H17**	• Complete documented pre-start/prestart book covering the items specific to this plant (see below), guards, isolators, e-stops, reversing alarm, beacon, fire extinguisher, first aid kit and spill kit. • Regular scheduled servicing/maintenance per manufacturer's schedule; defects tagged out and reported - do not operate a tagged/defective item. • Registration/inspection current where applicable.	**M8**	Operator
PRESSURE WASHER					
High-pressure water/chemical injection injury	Skin penetration or chemical injection injury from the high-pressure spray	**H17**	• Trigger gun never pointed at any person; operator trained in safe operating distance and technique before use. • Correct nozzle selected for the task; chemical additives (where used) handled per SDS with appropriate PPE. • Injuries from high-pressure injection treated as a medical emergency even if the skin appears undamaged - seek immediate medical attention.	**M8**	Operator
Hot water system (where fitted)	Burns from hot water/steam discharge or contact with the heating unit	**H14**	• Heating unit guards and covers confirmed in place before use; unit allowed to cool before any maintenance access.	**M9**	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			• Operator aware of hot water discharge temperature and maintains safe handling distance.		
Trailered unit towing and stability	Instability towing the trailer-mounted pressure washer unit	**M8**	• Unit secured to the trailer deck independently of general load restraint; hoses, reels and fittings stowed before towing. • Fuel/chemical containers on the unit secured and checked for leaks before departure - refer to RA-34 (LV Trailers) for general trailer towing controls.	**L4**	Operator
AIR COMPRESSOR					
Pressurised air system	Injury from uncontrolled release of compressed air, hose whip, or component failure	**H14**	• Hoses, fittings and couplings inspected for wear or damage at pre-start; whip-check restraints fitted at hose connections. • Air isolated and pressure released before disconnecting hoses or servicing the unit. • Compressed air never directed at any person, or used to clean clothing or skin.	**M9**	Operator
Noise	Hearing damage from sustained compressor noise	**M8**	• Hearing protection worn in accordance with site noise management plan. • Compressor sited away from regularly occupied work areas where practicable.	**L4**	Operator
GENERATOR SETS (7-30KVA)					
Electrical hazards	Electric shock from generator output, leads, or connected equipment	**H17**	• Generator earthed correctly before use; RCD (safety switch) protection confirmed on all outlets. • Leads and connections inspected for damage before use; only tagged and tested electrical equipment connected. • Generator not operated in wet conditions unless rated and set up for that environment.	**M8**	Operator
Fuel handling and fire	Fire from refuelling a running or hot generator	**H14**	• Generator shut down and allowed to cool before refuelling; refuelling carried out away from ignition sources. • Spill kit available at the refuelling location; correct fuel type used.	**M9**	Operator
Exhaust fumes	Carbon monoxide exposure from generator exhaust, particularly in enclosed or confined areas	**H14**	• Generator sited in a well-ventilated area, clear of site offices, enclosed spaces, or air intakes. • Never operated inside an enclosed building, container, or confined space without ducted exhaust extraction.	**M9**	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Noise	Hearing damage from sustained generator noise	**M8**	• Hearing protection worn where required; generator sited away from regularly occupied work areas where practicable.	**L4**	Operator
PLATE COMPACTOR (HAND-GUIDED)					
Crush and pinch injury	Crush injury to feet/hands from the moving plate or from the compactor tipping	**H14**	• Steel-capped boots and gloves worn at all times; operator maintains safe hand/foot position clear of the plate. • Compactor guided, not forced - operator walks beside/behind the machine, never in front of the plate's direction of travel.	**M9**	Operator
Vibration exposure (hand-arm vibration)	Hand-arm vibration syndrome from sustained operation	**M8**	• Rest breaks taken per site vibration exposure management on extended compaction runs. • Anti-vibration gloves used where provided; equipment maintained to manufacturer's specification to minimise excess vibration.	**L4**	Operator
Fuel and exhaust	Fire during refuelling, or carbon monoxide exposure operating in a confined trench/excavation	**H14**	• Engine shut down and cooled before refuelling. • Not operated in a confined trench or excavation without adequate ventilation.	**M9**	Operator
FUEL TRAILERS & STORAGE TANKS (DANGEROUS GOODS)					
Fuel storage and dispensing (dangerous goods)	Fire, explosion, or environmental spill handling diesel fuel trailers, the 10,000L wrap tank, and IBC bunding	**H18**	• Fuel storage sited and bunded per dangerous goods requirements (bunding rated to at least 110% of the largest container's capacity); placarding and signage in place per the relevant Australian Standard. • No ignition sources, smoking, or hot work within the designated fuel storage/dispensing exclusion zone. • Spill kit located at the storage/dispensing point; any spill contained and reported immediately per site environmental procedure. • Static electricity discharged before connecting/disconnecting fuel transfer hoses; correct fuel-rated hose and camlock fittings used.	**M9**	Operator / Site Supervisor
Fuel trailer towing	Instability or spill risk towing a loaded fuel trailer	**H14**	• Trailer coupling and safety chains checked before towing per RA-34 (LV Trailers); tank level and cap/vent confirmed secure before departure. • Load surge inside the tank considered when cornering or	**M9**	Driver

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			braking - reduced speed while towing.		
Lube skid handling	Slip hazard or environmental contamination from oil/lube handling	**M8**	• Lube skid sited on a bunded or contained surface; drip trays used under dispensing points. • Spill kit available; used oil/lube containers sealed and labelled correctly for disposal.	**L4**	Operator
WATER PUMPS & STAND PIPES					
Bore pump operation and electrical hazards	Electric shock or injury from the pump's electrical control box or moving drive components	**H14**	• Pump control box isolated and tagged before any inspection or maintenance; guards on drive belts/couplings confirmed in place. • Only authorised personnel to work on the pump's electrical system.	**M9**	Operator / Electrician
Stand pipe / hydrant connection	Slip/trip hazard or uncontrolled water discharge at the stand pipe connection	**M8**	• Stand pipe base secured and area kept clear of trip hazards; hose connections checked before opening the valve. • Valve opened slowly to avoid uncontrolled discharge or hose whip.	**L4**	Operator
SOLAR LIGHTING TOWER					
Mast raising and stability	Tip-over of the lighting tower during mast raising, or in high wind conditions	**H14**	• Outrigger legs fully deployed and levelled on firm, stable ground before raising the mast. • Mast not raised or left extended in high wind conditions exceeding the manufacturer's rated limit. • Exclusion zone maintained around the tower while the mast is being raised or lowered.	**M9**	Operator
Transport and relocation	Instability towing the lighting tower between site locations	**M8**	• Mast fully lowered and secured in the transport position before towing; coupling and safety chains checked per RA-34. • Tyre condition and trailer running gear inspected before relocation.	**L4**	Operator
MAINTENANCE (ALL ITEMS)					
Maintenance and servicing	Injury during servicing, or equipment returned to service with an unresolved defect	**M8**	• Equipment isolated (power/fuel off, tagged) before any maintenance task begins. • Maintenance carried out by accredited personnel only, following the relevant operator's/maintenance manual for the specific item. • Defects tagged and reported immediately; equipment not returned to service until resolved.	**L4**	Operator / Mechanical Team

Post-Task Activities

Post-Task Activities	Y	N
Ensure all tools are collected & returned to store/workshop.	☐	☐
Remove all waste materials from the area & place in the appropriate bins.	☐	☐
Report any damaged equipment.	☐	☐
Remove any barricades erected if no longer required.	☐	☐
Leave area clear of hazards.	☐	☐
Check area for hydrocarbon spillages.	☐	☐
Remove isolations and complete any permits/certificates if applicable.	☐	☐
Clean the cabin for the next person on shift to ensure a healthy work environment.	☐	☐

Additional Notes

Important: Every person on site must read this document and be familiarised with the underlying risks associated with operating this vehicle. It is the site supervisor's responsibility to check every team member has been briefed and has signed to acknowledge. Please add a note for any new risk identified during operation.

Risk Matrix

Likelihood \ Consequence	1 Insignificant No injury / near miss	2 Minor First aid / medical treatment	3 Significant LTI or restricted work duties	4 Major Fatality or serious permanent injury	5 Catastrophic Multiple fatalities – 50 or more health effects
Almost certain – Expected to happen	H11	H16	E20	E24	E25
Likely – Could happen frequently	M7	H12	H17	E22	E23
Possible – Could happen occasionally	L4	M8	H13	H18	E21
Unlikely – May occur sometime	L2	L5	M9	H14	E19
Rare – May only occur in exceptional circumstances	L1	L3	M6	H10	H15

Risk Rating – Actions Required After Ranking Risk

E STOP	H REVIEW	M PROCEED	L PROCEED
Eliminate or reduce the hazard to acceptable level (e.g. Medium or Low) in order to proceed	Controls to reduce hazard as far as reasonably practicable	With stated controls and supervision	And monitor for changes in conditions

Control the Risk – Hierarchy of Controls

Hierarchy of Controls	Examples of Controls
Elimination	• Design change, change of construction methodology
Substitution	• Use safer substance/chemical • Environmental catchments/sedimentation pools
Isolation	• Guards on power tools; effective screens, barriers and edge protection • Enclose noisy machinery; environmental swales, booms or barriers, paint washout station
Engineering	• Earth leakage device (safety switch) on electrical sources • Use a machine to lift heavy objects; use scaffold rather than a ladder as a working platform
Administration	• Change work practices and safe work method procedures • Tagging and testing procedures or waste sorting
PPE	• Hard hats, glasses, hearing protection, hi-vis vests, safety boots/shoes • (Note: PPE should be the last option to protect people)