ACTIVITY: Crane - Truck Mounted - Hiab		SWMS No.:
SAFE WORK METHOD STATEMENT (SWMS) - Part 1		
Company Name: Switchboard Tranz	Address: PO Box 6043, Upper Mt Gravatt, Qld 4122	ABN: 18 066 447
Company Contact: Jason Flynn	Position: Director	Phone No.: 0411 61 51 00

Project Details

Project:	Insert Photo
Job Address:	
Job Description:	

Relevant workers must be consulted in the development, approval and communication of this SWMS:

Name: (Include names of workers who were consulted in relation to the development of this SWMS)	Signature:	Job Title:	Date:

SWMS Approved by *Employer/PCBU/Director/Owner*:

Print Name

Signature:

Date:

Name of Principal Contractor:	Principal Contractor Company Name:	
Date SWMS provided to Principal Contractor:	Principal Contractor Signature:	Date:
Name of person responsible for ensuring compliance with SWMS:	Signature:	Date:

SWMS Scope	High Risk Construction Work
This SWMS covers the general use of a vehicle-mounted truck loader crane. This SWMS does not cover hazardous manual tasks, traffic management or rigging and dogging in sufficient detail. Dedicated SWMS should be developed for these tasks, and for any risks not covered in this SWMS. There are several types of Vehicle-Mounted Truck Loader Cranes and each has specific safety devices, which should be considered when choosing the type of crane for the job. The cranes are also known by other names including mobile cranes or common brand names (such as Hiab or Palfinger).	**This work activity involves the following "High Risk Construction Work":** • Moving Plant • Work carried out adjacent to a road, railway or shipping lane, traffic corridor • Is carried out on or near energised electrical installations or services.

Personal Protective Equipment (PPE)

Ensure all PPE meets relevant Australian Standards. Inspect, and replace PPE as needed.

Foot Protection	Hearing Protection	High Visibility	Head Protection	Eye Protection	Hand Protection	Sun Protection	Rings, watches, jewellery that may become entangled in machines must not be worn. Long and loose hair must be tied back.
						Broad brimmed hat, UV rated clothing, SPF 30+ sunscreen, tinted safety glasses with adequate UV protection)	

Dangerous Goods / Hazardous Chemicals	Environmental Risk
Diesel is classified as a hazardous chemical according to the Australian Safety and Compensation Council (ASCC) and is not classified as a Dangerous Good according to Australian Code for the Transport of Dangerous Goods by Road or Rail (ADG Code). Diesel is classified as Harmful. Read the Safety Data Sheets (SDS) for all **fuel products** before use, follow the SDS recommendations and relevant SWMS.	**Diesel:** Environmental risks may include damage to waterways and water catchment areas due to incorrect disposal of, or from run-off of hazardous chemicals during spills or clean up. Diesel is toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. **Noise pollution** is a risk when work is conducted in close proximity to public areas - check with local council regarding noise restrictions in urban areas.

Hazards - What can cause harm?	Risks - What can happen?	Control Measures to Reduce Risk
Job Step: Planning		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Electric shock/ electrocution	**Consultation in relation to hazards and risks. Ensure:** - Consult with the person you are carrying out the work for on the potential hazards and risks associated with the task - If represented by an elected Health and Safety Representative (HSR), they must be included in any consultation - Any other persons on site who are affected by the same matter are consulted and co-operative arrangements are made - Document consultation and action items.

- Contact or collision with other plant and structures - Electricity - Noise - Hazardous Manual Tasks - Hazardous Chemical – single exposure (Diesel, lubricants) - Static electricity.	- Hearing Loss - Muscular stress/ Musculoskeletal Disorder - Explosion causing injury or death - Single exposure to hazardous chemical causing illness or death.	Liaise with Principal Contractor to establish that the following on-site systems and procedures are in place: - Health and Safety rules - Induction for all workers – site specific - Supervisory arrangements - Communication - Injury reporting - Hazard reporting - Personal Protective Equipment - Exclusion Zones - Risk Assessments - SWMS and JSA's. Assess the exposure of workers to noise, including the frequency of exposure to noise levels that exceed the legislated Exposure Standard while operating the truck mounted loader crane and determine required controls such as Audiometric Testing and PPE. Refer to Noise Control SWMS for detailed information regarding the prevention of hearing loss and legislative requirements. **Audiometric Testing.** If Audiometric testing is required it must: - Be provided within three months of the worker commencing work - Be started before people are exposed to hazardous noise (such as new workers or those changing jobs) - Provide a baseline as a reference for future audiometric test results - Have follow-up tests carried out at least every two years. - Be carried out with consultation with your workers and their health and safety representatives - Be carried out by competent persons in accordance with the procedures in the relevant Australian Standard - Workers should be given the results of audiometric testing accompanied by a written explanation of the meaning and implications. National Certification may be required (including slinging and lifting of loads) for operation. Nationally Accredited Certification is required to operate the following types of Vehicle-Mounted Truck Loader Cranes: - Any crane above 10 metre tonnes * - Non-slewing mobile crane above 3 tonnes - Slewing mobile cranes (up to 20 tonnes), (up to 60 tonnes) (up to 100 tonnes) (open/over 100 tonnes). * To calculate Metres Tonnes – Load x radius = Lift performance rating (in metre tonnes).

		All operators to be trained, licensed and competent to safely operate the truck mounted loader crane, Training should include: - Site specific induction (include location of amenities, first aid facilities, emergency plans and evacuation points, incident reporting, communication, contact persons etc) - Health and Safety Rules for site - Supervisory arrangements - PPE requirements for site - Types of hazards at site - Site plans – showing no go zones for pedestrians - Traffic Management plans - Relevant SWMS and JSA's - Site security requirements - Read and understand the manufacturers manual/safety precautions for the truck mounted loader crane. **Operator must be FULLY conversant with:** - The manufacturer's recommendation and rating charts for the crane - The safety devices present on the crane. The PCBU and the Principal Contractor will be required to determine, establish, control and monitor the following: - Scope of work - Appropriate Crane for the work to be carried out - Ground conditions and supporting structures are adequate to support the weight of the crane and loads while conducting the planned lifts - Crane operators hold the relevant licence and is competent to operate the crane or cranes - Weather conditions, e.g. the likelihood of high winds or thunderstorms - Best location for the crane to carry out the planned lifts, e.g. where are buildings, other structures and plant at the workplace, aeroplane flight paths - Adequate room for the crane, equipment, people and other mobile plant and vehicles to enter and exit the workplace safely - Liaison with electricity supply authorities about control measures for working near overhead electric lines - Enough trained, licensed and competent people supporting safe crane operations. Ensure work undertaken at construction sites complies with the requirements of the site (including induction cards, Safe Work Method Statements etc).

		Detailed Risk Assessment and SWMS to be developed, with consultation with relevant workers, before commencement of the job. **RB: 4A** | **Person responsible to implement control measures:** Jason Flynn, Site Safety Officer:, Principal Contractor: | **RA: 2M**
Job Step: Preparation		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning - Contact or collision with other plant and structures - Electricity - Noise - Hazardous Manual Tasks - Hazardous Chemical – single exposure (Diesel, lubricants) - Static electricity.	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Electric shock/ electrocution - Hearing Loss - Muscular stress/ Musculoskeletal Disorder - Explosion causing injury or death - Single exposure to hazardous chemical causing illness or death.	Prepare and implement a traffic management plan and make available to workers. Ensure the following is covered: - Exclusion zones for mobile plant to be clearly identified (signage and barricades as per site plan) and controlled during crane operations - Dedicated, trained road traffic controller(s) to direct traffic entering and leaving work zone and control traffic (pedestrian and vehicle) on adjacent pedestrian footpaths and roadways - Use portable traffic signals and/or temporary safety barriers to direct/control traffic flow as required - All Mobile Cranes on site must travel on planned and controlled routes. **Inspection of worksite. Ensure:** - Angle of the ground less than 5 degrees - Ground is firm and suitable - Loads will not be lifted over personnel - Sufficient operator room - Sufficient visibility - Placement will not cause traffic congestion - Adequate lighting (especially during night works) - Ensure there is adequate workplace access - Sufficient room to operate the crane safely - Most appropriate location to site the crane in relation to other buildings, structures and plant at the workplace has been determined - Exclusion zones are in place and operational - Ensure that the ground conditions are adequate to support the crane (check for recent rain, previous excavations or trenching, bearing capacity). **Communication and personnel:** Additional effective means of communication and appropriate workers is required where the Mobile Crane operator: - Cannot see the load

		- Cannot see the load's landing area - Cannot see the path of travel of the load or the crane - Is not in a position to make an accurate judgement of distance - If required for operating in near proximity to exclusion zones of power lines. **Overhead Power Lines:** Depending upon the risk of electrocution to on site workers (roof workers, crane operators, labourers etc.) the following must be considered: 1. "Tiger Tails" can be installed prior to commencement (**Note:** Tiger tails ONLY give a visual warning of the proximity of power lines.) 2. Power cables can be redirected or power isolated for the duration of the work. If working within the exclusion zone of live power lines an Authorised Person is required as a Spotter. The exclusion zones and approach distances to overhead electricity lines at the locations and distances specified on the site plan are to be clearly identifiable and enforced by a dedicated controller. **Exclusion Zones** must be established around Mobile Cranes and adjoining areas to stop people entering the area and being injured by the crane or falling objects. The size of the exclusion zone should be based on a Risk Assessment. Where the exclusion zone is a public footpath or roadway to be closed, approval must be sought from the relevant authority. People should be safely directed to an alternative footpath. Lane closures and other operations requiring barricades and signs to be erected should meet local road traffic authority, local government authorities and relevant building or local laws. Refer to relevant Code of Practice for specific details on safe work near overhead power lines. **RB: 4A** | **Person responsible to implement control measures:** Jason Flynn, Site Safety Officer:, Principal Contractor: | **RA: 2M**
Job Step: Pre- Operational Inspection		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury	Do not work in No Go Zones of electrical power lines unless de-energised/isolated and evidence of the continuing isolation of the power supply is obtained. **Hearing protection, ensure**: - It is worn by all persons throughout the period of exposure to noise - It is suitable for the type of working environment and the work tasks - It s comfortable and correctly fitting for the worker - It is regularly inspected and maintained to ensure it remains in good, clean condition.

- Crane - Overturning - Contact or collision with other plant and structures - Electricity - Hazardous Manual Tasks - Hazardous Chemical – single exposure (Diesel, lubricants) - Static electricity.	- Electric shock/ electrocution - Muscular stress/ Musculoskeletal Disorder - Explosion causing injury or death - Single exposure to hazardous chemical causing illness or death.	Ensure work area is barricaded from other mobile plant. If required (such as roadside work) adequate traffic management is provided. Where work is undertaken in close proximity to power lines: - Trained spotters - Movement limiters installed. Ensure work area is clear of obstructions. Pre-operation check to be carried out by the Licenced Crane Operator. **Visually check for:** - Evidence of structural weaknesses such as paint separation and/or weld stress - Boom and jib for straightness and any evidence of physical damage, such as cracking, bending, or any other deformation of the welds - All guards are in place - Wire rope for damage including sheaves, drums rigging, hardware, and attachments - Hooks for deformity or cracks. If found they must be removed from service - Oil and hydraulic leaks - Tyre damage and inflation - Clean windows, lights and rear view mirror - Loose objects inside of cabin - Rubbish and dirt in the engine compartment, radiator and the cabin daily - Log book entries. Always inspect boom hoist lockout and other operator aids, such as anti-two-block devices (ATB) and load moment indicators (LMI), for proper operation and calibration. Axle Lockouts – Where fitted: - Should be regularly checked to ensure that they are functioning correctly. **Inspect before use**. **Ensure**: - Equipment, including labelled controls and safety devices, are present and working - Complete log books - Slings, chains, lifting equipment in acceptable condition, rated for the loads to be lifted and compatible. **Ensure:** - Operator on opposite side to where the load is being lifted/lowered - Clear view of load at all times - Load cannot become entangled/snagged - Truck tray is clear of loose materials (such as lashings, dunnage and packing material) and suitable access is provided. **Outriggers/Stabilisers:** Ensure outriggers/stabilisers are used as per the manufacturers recommendations.

		Outriggers/stabilisers MUST be lowered and on firm footing. **NOTE**: Wheels should not be lifted off the ground as they supply the main stability. **Ensure:** - Parking brake is applied. - Truck wheels are chocked if the ground slopes slightly - Adequate tyre pressure. **RB: 4A** | **Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor: | **RA: 3H**
Job Step: Lifting Gear Checks		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning - Contact or collision with other plant and structures - Hazardous Manual Tasks.	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Muscular stress.	Lifting gear should be checked before and after use, and inspected regularly to determine whether it is suitable to keep using. **Check:** - It is tagged to identify the date of the lifting gear's last inspection - Tags list all relevant information (e.g. for a chain sling includes grade of chain, rated capacity (WLL), manufacturer, chain size and any relevant Australian Standard marking) - Lifting hooks are provided with operable safety latches where appropriate - Shackles used as terminal fittings are prevented from unscrewing - Lifting eyes and inserts are compatible - Lifting slings are not damaged, e.g. excessive wear, damaged strands, cracks, deformation or severe corrosion - Sling is appropriate for load being lifted, including adequate capacity and protection from sharp edges. All damaged lifting gear is to be removed from service and tagged. Lockout-Tagout (LOTO). Documented maintenance records for the lifting gear should be available at the workplace. Flat synthetic slings: - No knots tied in the sling - Protective sleeves and corner pieces should be used for all loads - Do not use if there is any sign of cut webbing, snagging, heat or chemical damage, excessive

		wear or other damage. Wire rope slings: - Check the twists or lay of the sling. If ten randomly distributed wires in one lay are broken, or five wires in one strand of a rope lay are damaged, the sling must not be used - Check end fittings and other components for any damage that could make the sling unsafe. Chains/hooks: - Links are free from bends and or twists - No gouges, chips and cuts in links - Check for wear at bearing surfaces on links. Tag lines are: - At least 16 mm diameter & non conductive - Maintained in clean and dry condition. Spreader beams (Strut for spreading double leg slings). Check: - Safe working load (SWL) and tare weight which should be clearly stenciled on the beam - For visible damage. **RB: 4A** | **Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor: | **RA: 3H**
Job Step: Crane Setup		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning - Contact or collision with other plant and structures - Electricity - Hazardous Manual Tasks.	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Electric shock/ electrocution - Muscular stress/ Musculoskeletal Disorder.	**Crane stability:** Failure to maintain stability is one of the key factors associated with serious crane incidents. Consider: - Crane operation that may result in an overturning movement greater than the stabilising movement of the crane - Ground conditions - Means of supporting the outrigger pads or the crane tyres - Slope of the ground—both side slope and slope in direction of crane travel - Wind conditions—this will vary depending on the size and shape of the suspended load and crane boom - Manner in which loads are lifted or moved, e.g. when mobilising a load a sudden stop may cause the load to swing, destabilising the crane. Ensure: - Crane is set up so that it is level and can be safely rotated - Stability will be maintained when the load is lifted and placed

		- Each load is assessed in consultation with associated personnel for the need for a tag hand line. If required, where control of the load is critical, a suitable tag line should be attached. Outriggers must be: - Extended, lowered and locked in position BEFORE the boom is erected as per manufacturer's instructions - Fully extended. (Note: If the outriggers are not capable of being fully extended the safe operating radius is reduced. The radius should be recorded.) Loads must be checked for: - Weight - Stability – example – when lifting steel, bricks etc. - Other hazards such as hazardous chemicals. **RB: 4A** | **Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor: | **RA: 3H**
Job Step: Conduct Trial Lift		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning - Contact or collision with other plant and structures - Electricity - Noise - Hazardous Manual Tasks.	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Electric shock/ electrocution - Hearing Loss - Muscular stress/ Musculoskeletal Disorder.	Assess weather conditions – do not work in extreme weather. Mounting and Dismounting from the Mobile Crane cabin: - Face the cabin - Maintain a three-point contact with the steps and with handholds - Use the handrails and steps provided - Never mount a moving crane - Never dismount a moving crane - Never jump off the crane - Do not use the steering wheel as a hand hold - Do not carry tools or supplies when you try to mount / dismount - Do not use any controls as handholds when you enter the operator compartment or when you exit the operator compartment - Seat belts must be worn. Ensure: - Only freely suspended loads are to be lifted Example - Never attempt to remove a tree that has been partly dug out.

		Check: With load lifted slightly off the lifting plane (ground, truck tray, roof etc.) - Boom is correctly positioned to ensure load to be lifted is plumbed under the hook. This will ensure that the load does not swing when lifted. - Load is correctly slung - All crane equipment is functioning properly. - Hydraulic or pneumatic systems (where relevant) are at the required operating pressure. - Where load-measuring devices are fitted, the estimated weight is verified and load/radius calculations are revised as required. **Note**: A trial lift is important particularly for near capacity loads or loads of unusual weight distribution or shape. If the trial lift reveals an unacceptable operational situation, lower the load and take corrective action. **RB: 4A** | **Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor: | **RA: 3H**
Job Step: Operation of Crane		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning - Contact or collision with other plant and structures - Electricity - Noise - Hazardous Manual Tasks.	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Electric shock/ electrocution - Hearing Loss - Muscular stress/ Musculoskeletal Disorder.	Hazardous Manual Handling: - Avoid long periods of repetitive movements - Avoid awkward and sustained positions - Avoid prolonged sitting - Use mechanical lifting aids when possible - Use two or more people for lifting & moving heavy / awkward equipment - Regular breaks. Operation as per manufacturer's recommendations and task specific safe work method statement. Loads must never exceed the rated capacity of the crane and equipment. Suspended loads must never be left unattended. Keep clear of the danger zones during operation: - Path of the load - Area beneath the suspended loads - Path of crane components - Between the vehicle and load.

		WARNING: Stability can be affected during the load movement. Monitor throughout operation. Load must be safe / secured before shifting. Check weather conditions – do not work in extreme weather. If **adverse weather conditions** develop during work, such as high winds, heavy rain, and/or extreme temperatures, it may be necessary to close down the lifting operation then immediately cease work. Operator must remain alert to other plant and equipment movements on the site. Where possible, avoid working or travelling on sloping or uneven ground. Travel on a slope should be up or down the slope, not across the slope. If working or travelling on a slope is unavoidable, use the crane within the manufacturer's specified capacity for operating on the relevant degree of slope. **Travelling on site. Where Required:** Route must be planned and checked to ensure that the crane traverses only firm and level surfaces. Where slopes are unavoidable, an authorised person must be consulted to ensure the feasibility of operation and the necessary hazard control measures are in place. Road travel. The crane manufacturer's instructions should be followed when preparing a mobile crane for road travel. Precautions for road travel include: - Check tyre pressures meet the manufacturer's instructions for road travel - Secure the outriggers—both hydraulic and manual—with a locking device specified by the crane manufacturer - Stow outriggers in a travelling position to ensure that there is no lateral movement - Store loose components in appropriate storage areas - Disengage all drives to hydraulic pumps, booms and outriggers - All controls in the off position - Restrain the boom according to the crane manufacturer's instructions to ensure there is no unintended movement of the boom. **Hazard control measures include:** - Minimum speed - Gentle accreditation and braking (to minimise load swing). - Carrying the load near to the ground surface - Use of tagline ropes - Always avoid rapid slewing - Safe work procedure in place for lifting loads such as: o Material boxes o Formwork frames o Cement tilt up panels o Joists or bearers o Timber

		○ Pipes ○ Plasterboard sheeting ○ Hazardous Materials. Take care to stop the load swinging when lifting the load. The Mobile Crane operator should always have the load under control when lowering loads or when the load is suspended. Loads are to be hoisted and lowered into position using all relevant crane movements in accordance with the appropriate Australian Standards. Loads should not be suspended over, or travel over, a person A crane should not be left unattended by the Crane Operator unless: - All loads are removed from the hook or lifting device - The hook has been secured or raised to a position where is clear of other operations - All powered motions have been disabled - The keys removed or the starting device locked out. **On completion:** - Fold the crane into correct transport position - Retract the stabilisers and stow correctly and locked in position - Inspect all equipment for damage and follow tag out procedures if required - Inspect plant for signs of malfunction (such as hydraulic leaks) and report as required.

RB: 4A	**Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor:	**RA: 3H**

Job Step: Re-fuelling		
Hazards include: - Explosion - Fire - Hazardous Chemical – single exposure (Diesel, lubricants) - Static electricity.	Risks include: - Burns caused by fire - Electric Shock - Explosion causing injury or death - Single exposure to hazardous chemical causing illness or death.	Read the current (issue date within 5 years) Safety Data Sheets (SDS) for all fuel products before use. Follow Manufacturers Manual for more details for re-fuelling. **Additional PPE if any risk of splashing -** Chemical splash goggles**,** chemical resistant gloves/gauntlets, boots, and apron. **Note:** - Avoid breathing vapours or contact with fuel - If clothing is splashed with fuel, change it immediately - Ensure re-fuelling is undertaken in well-ventilated area, clear of ignition sources.

		Re-fuelling: - Shut off engine - Allow to cool before re-fuelling if possible - Remove cap slowly - Use a fuel hose, pouring spout or funnel - Fill tank and wipe away excess - Ensure there is no over spill - Ensure cap has been secured and any vapour residue has been wiped away - Check for leaks. **Note:** *Do not eat, drink or smoke after handling fuel until hands are carefully washed. Shower and wash immediately after work. Wash clothes in separate wash from other clothes.* **Note:** Ignition sources include pilot lights, stoves, heaters, cigarettes, matches/lighters, grinding, welding, powerpoints, lighting, light switches, radio transmitters, mobile phones, battery powered forklifts etc. **RB: 3H** | **Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor: | **RA: 2M**
Job Step: Maintenance		
Hazards include: - Moving / falling objects - Structural failure - A crane component, including the boom, jib, hydraulic rams or wire rope could suffer structural failure without warning - Crane - Overturning - Contact or collision with other plant and structures - Electricity - Hazardous Manual Tasks.	Risks include: - Struck or crushed by moving / falling objects causing death or serious injury - Contact or collision with other plant and structures causing death or serious injury - Electric shock/ electrocution - Muscular stress/ Musculoskeletal Disorder.	Perform scheduled maintenance as specified by the manufacturer and relevant Australian Standard. **WARNING:** When conducting maintenance of crane arm ensure support pins are in place and working, to prevent accidental hydraulic pressure release and collapse of equipment. Ensure all servicing; maintenance and suitably licenced, qualified & competent persons, as per legislative requirements, and manufacturer's recommendations, perform repairs. Inspecting and testing Mobile Cranes must include the: - Major inspection required for registrable Mobile Cranes - Regular weekly and monthly inspection and testing required for all plant - Inspection and testing for plant item re-registration. Inspecting and testing should include: - Annual inspections - Commissioning inspection and tests - Routine inspections and maintenance

- Daily Pre-operational inspections and checks.

Annual inspections should include:

- The effective functioning and calibration of all limiting and indicating devices
- Detailed visual inspection and tolerance checking of all structural and wear components
- Checking of tolerances for wear limit
- Detailed check for corrosion
- Detailed examination of critical areas for evidence of cracking.

Weekly, monthly and 3 monthly inspections and maintenance, should include:

- All functions and their controls for speed, smoothness of operation and limits of motion
- Emergency and safety switches and interlocks, including limiting and indicating devices
- Lubrication of all moving parts
- Filter elements and fluid levels
- Brakes, gears, fasteners, pins, shafts, wire ropes, sheaves, locking devices and electrical contactors
- Signage, including warning signs and control markings
- Wear on wheels and tyres
- Extra items nominated in the crane manufacturer's instructions.

All replacement parts should be identical or equivalent to the original parts or components.

Maintain and complete the logbook of service and maintenance history as required. Inspection records should include a statement from the appropriate competent person confirming the item of plant has been inspected and is safe to operate.

Note: Inspection intervals recommended in manufacturer's publications frequently represent minimum intervals for average operating conditions and should be used as a guide to actual operating conditions.

RB:4A	**Person responsible to implement control measures:** Jason Flynn Site Safety Officer: Principal Contractor:	**RA:3H**

Emergency Procedures / Emergency Response

Emergency Response: Call **000** immediately if a person is entrapped, has been crushed or has been hit by Mobile Crane or its load. Do not attempt to rescue a person who is trapped or has been crushed by a load or Mobile Crane unless Emergency Services personnel have provided direction and it is safe to do so. Procedure must be in place which covers electrocution / electric shock and/or contact with overhead electrical wires or associated structures. Develop and implement an emergency response plan for the site. Include: - Assembly points - Communication - Consultation methods - Responsible persons - Emergency contacts - names and phone numbers - First aid equipment - Fire Extinguishers – accessible & serviced.	Develop site-specific rescue procedures/SWMS Ensure all workers on-site are trained and familiar with emergency and evacuation procedures. **Person/s responsible to implement and follow emergency procedures and control measures:** Jason Flynn Site Safety Officer: Principal Contractor:

Review

To ensure controls are implemented and monitored effectively:

- Toolbox /pre-work meetings will be undertaken
- Relevant persons will be consulted on hazards and contents of SWMS, work plans and other applicable information
- Control measures will be monitored throughout works:
  - Spot checks
  - Consultation
  - Scheduled audits
- Corrective actions will be recorded and rectified in a timely manner SWMS will be reviewed and updated accordingly (in consultation with relevant persons)

Ensure all controls are reviewed as per the following:

- If controls fail to reduce risk adequately
- When changes to the workplace or work activity occur that create new / different risks where controls may no longer be effective
- New hazards identified
- After an incident involving work activities relevant to this SWMS
- During consultation with relevant persons indicate review is needed
- A Health and Safety Representative (HSR) requests a review in line with the requirements of the legislation.

Person/s responsible to implement and follow monitoring and review procedures and control measures:

Jason Flynn

Site Safety Officer:

Principal Contractor:

SAFE WORK METHOD STATEMENT - Part 2

Formal Training, Licences required for workers undertaking this task:	Duties of workers undertaking this task:	Details of Supervisory Arrangements for workers undertaking this task:
- Licence to Perform High Risk Work (operating certain plant, equipment) – n/a - TAFE or other recognised training organization: Major Training Certificate - Construction Induction Card (or equivalent) - yes - Competent in operation of make/model of plant - yes - Emergency procedures – emergency response - yes - PPE - yes - Traffic Management Plans – n/a	(Name): Operator (Name: Clean-up crew (Name): Supervisor	- Suitably qualified supervisors for job - Direct on-site supervision - Remote site – communication systems/ schedule - Audits - Spot Checks, etc. - Reporting systems

Details of: regulatory permits/licenses Engineering Details/Certificates/WorkCover Approvals:	Relevant Legislation, Codes of Practice: Note: Retain only the legislation references applicable to your state of operation for this SWMS.
- Local council permits - n/a - Building Approvals – n/a - EPA approvals/permits - n/a - Certain plant to be registered with State Authority – n/a PPE comply with relevant Australian Standards	• **Commonwealth, NSW, QLD, ACT** o Work Health and Safety Act 2011 o Work Health and Safety Regulations 2011 • **Northern Territory** o Work Health and Safety (National Uniform Legislation) Act 2011 o Work Health and Safety (National Uniform Legislation) Regulations • **SA, Tasmania** o Work Health and Safety Act 2012 o Work Health and Safety Regulations 2012 • **Codes of Practice:** Safe Work Australia (2011): o *Construction Work* o *First Aid in the Workplace* o *Managing the Risk of Falls at Workplaces* o *Managing the Risk of Plant in the Workplace* o *Managing Noise and Preventing Hearing Loss in the Workplace* o *How to Manage Work Health and Safety Risks* o *Hazardous Manual Tasks* o *Managing Risks of Hazardous Chemicals* o *Managing the Work Environment and Facilities* o *WHS Consultation, Cooperation & Coordination*
Plant/Tools/Equipment: (List plant and equipment to be used on the job.)	• **Victoria** o Occupational Health & Safety Act 2004 o Occupational Health & Safety Regulations 2007 o **Codes of Practice:** • **Western Australia** o Occupational Safety & Health Act 1984 o Occupational Safety & Health Regulations 1996 o **Codes of Practice:** • **Australian Standards:** o AS 2550.3:2011 *Cranes, hoists and Winches – Safe Use – General requirements* o AS 2550.3: 2011 *Cranes, hoists and Winches – Bridge, gantry, portal (including container cranes), jib and monorail cranes* o AS 2550.2:2002 *Cranes, hoists and winches - Safe use Part 5: Mobile Cranes* o AS/NZS 1418.5: 2002 *Cranes, hoists and winches – Mobile cranes* o AS/NZS1269: 2005 *Occupational noise management* o AS/NZS 4501:2008 (set) *Occupational Protective Clothing* o AS/NZS 3775.2:2004 *Chain slings – Grade T – Care and use. (plus amendment 1 – 2006)* o AS/NZS 1666.2:1995 *Wire-rope slings – Care and use* o AS/NZS 1353.2:1997 *Flat Synthetic - Webbing Slings - Care and Use* o AS/NZS 1380.2:1998 *Fibre - Rope Slings - Care and Use* o AS/NZS 1438.2:1998 *Wire - Coil Flat Slings - Care and Use*
Vehicle Mounted Truck Loader Crane Make / Model: PK14002 Palfinger Crane Make / Model: 2008 ProRanger 10 Hino	

Reference Documents	
Safe Work Australia (2011): *Guidance on the Classification of Hazardous Chemicals under the WHS Regulations*	**DRAFT -** Safe Work Australia (2013): Code of Practice: *Cranes*
Safe Work Australia (2011): Code of Practice*: Managing Risks of Hazardous Chemicals*	Work Health & Safety Queensland: *Technical Guidance Note: Safe Operation of Cranes*
Safe Work Australia (2011): Code of Practice*: Managing Noise and preventing hearing loss at work*	WorkCover NSW: Guide: *Cranes, Hoists and Winches*
Safe Work Australia (2011): Code of Practice*: Hazardous Manual Tasks*	Cargotec, Inc. (1993): Operator's Manual: *Hiab 710*

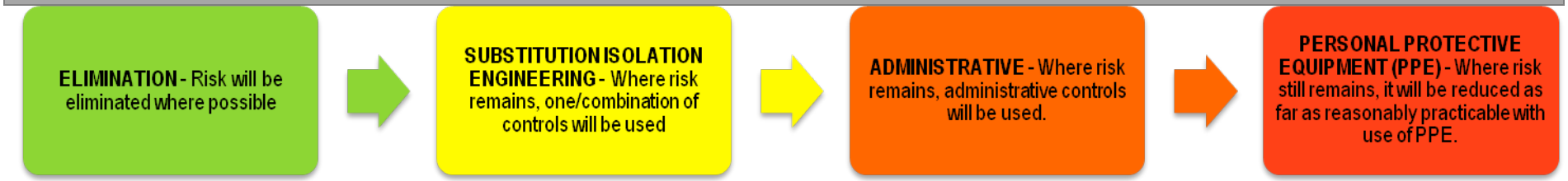
SAFE WORK METHOD STATEMENT - Part 3

This SWMS has been developed in consultation and cooperation with *employee/workers* and relevant *Employer/Persons Conducting Business or Undertaking (PCBU)*. I have read the above SWMS and I understand its contents. I confirm that I have the skills and training, including relevant certification to conduct the task as described. I agree to comply with safety requirements within this SWMS including risk control measures, safe work instructions and Personal Protective Equipment described.

Overall Risk Rating after Controls	1 Low	2 Moderate	3 High		4 Acute
Employee/Worker Name	**Job Role / Position**	**Signature**	**Date**	**Time**	**Employer/PCBU/ Supervisor**
Jason Flynn	Contractor				
	Site Safety Officer				
	Principal Contractor				

Review No.	1	2	3	4	5	6	7	8
Name	Jason Flynn	Site Safety Officer	Principal Contractor					
Initial								
Date								

HIERARCHY OF CONTROLS



RISK ASSESSMENT MATRIX

References: Safe Work Australia (2011) - Code of Practice: How to Manage Work Health and Safety Risks, AS/NZS 31000 -2009 Risk Management Principles and Guidelines.

Step 1: Determine Likelihood
What is the possibility that the effect will occur?

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

Step 2: Determine Consequence
What will be the expected effect?

Level of Effect:	Example of each level:
Insignificant/Acceptable	No effect – or so minor that effect is acceptable.
Minor	First Aid treatment only; no lost time injury.
Moderate	Medical treatment; serious injuries, temporary partial disability; lost time injury < 7 days.
Major	Hospital admittance; extensive injuries; lost time injury > 7 days; Permanent Total Disability injury; death.
Catastrophic	Multiple Permanent Total Disability injuries; multiple deaths.

Step 3 Determine the risk score

	Consequence				
Likelihood	**Insignificant**	**Minor**	**Moderate**	**Major**	**Catastrophic**
Almost certain	3 High	3 High	4 Acute	4 Acute	4 Acute
Likely	2 Moderate	3 High	3 High	4 Acute	4 Acute
Possible	1 Low	2 Moderate	3 High	4 Acute	4 Acute
Unlikely	1 Low	1 Low	2 Moderate	3 High	4 Acute
Rare	1 Low	1 Low	2 Moderate	3 High	3 High

Step 4 Record risk score on worksheet (**Note** – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)

Score	Action
4 A: Acute	**DO NOT PROCCED.** Requires immediate attention. Introduce further high level controls to lower the risk level. Re-assess before proceeding.
3 H: High	**Review before commencing work**. Introduce new controls and/or maintain high level controls to lower the risk level. Monitor frequently to ensure control measures are working.
2 M: Moderate	**Maintain control measures.** Proceed with work. Monitor and review regularly, and if any equipment/people/materials/work processes or procedures change.
1 L: Low	**Record and monitor**. Proceed with work. Review regularly, and if any equipment/people/materials/work processes or procedures change.