# High Risk Construction Work Safe Work Method Statement

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NOTE:** Work must be performed in accordance with this SWMS.  This SWMS must be kept and be available for inspection until the high risk construction work to which this SWMS relates is completed. If the SWMS is revised, all versions should be kept.  If a notifiable incident occurs in relation to the high risk construction work in this SWMS, the SWMS must be kept for at least 2 years from the date of the notifiable incident. | | | | | | | | |
| APEX Labour | | | | **Principal Contractor (PC)** | |  | | |
| **Works Manager:**  **Contact phone:** |  | | | **Date SWMS provided to PC:** | |  | | |
| **Work activity:** | General Tower Crane | | | **Workplace location:** | |  | | |
| **High risk construction work:** | ⬜ Risk of a person falling more than 2 metres (*Note:* in some jurisdictions this is 3 metres) | | ⬜ Work on a telecommunication tower | | | | ⬜ Demolition of load-bearing structure | |
| ⬜ Likely to involve disturbing asbestos | | ⬜ Temporary load-bearing support for structural alterations or repairs | | | | ⬜ Work in or near a confined space | |
| ⬜ Work in or near a shaft or trench deeper than 1.5 m or a tunnel | | ⬜ Use of explosives | | | | ⬜ Work on or near pressurised gas mains or piping | |
| ⬜ Work on or near chemical, fuel or refrigerant lines | | ⬜ Work on or near energised electrical installations or services | | | | ⬜ Work in an area that may have a contaminated or flammable atmosphere | |
| ⬜ Tilt-up or precast concrete elements | | ⬜ Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than pedestrians | | | | ⬜ Work in an area with movement of powered mobile plant | |
| ⬜ Work in areas with artificial extremes of temperature | | ⬜ Work in or near water or other liquid that involves a risk of drowning | | | | ⬜ Diving work | |
| **Person responsible for ensuring compliance with SWMS:** | |  | | | **Date SWMS received:** | | |  |
| **What measures are in place to ensure compliance with the SWMS?** | |  | | | | | | |
| **Person responsible for reviewing SWMS control measures:** | |  | | | **Date SWMS received by reviewer:** | | |  |
| **How will the SWMS control measures be reviewed?** | |  | | | | | | |
| **Review date:** | |  | | | **Reviewer’s signature:** | | |  |

| **What are the tasks involved?** | **What are the hazards and risks?** | **What are the control measures?** |
| --- | --- | --- |
| List the work tasks in a logical order. | Identify the hazards and risks that may cause harm to workers or the public. | Describe what will be done to control the risk. What will you do to make the activity as safe as possible? |
| General planning | Task specific injuries due to inexperience, inadequate consultation or failure to provide appropriate equipment. | Site induct the crane crew, comply with the required use of all PPE and follow all reasonable directions for your safety and others given by the committee and management |
| Certification | Plant failure | The following certification is required   1. Engineers certificate for the crane base 2. Engineers certificate for the design of the crane 3. Pre-erection and commissioning inspection and testing 4. WorkCover registration 5. Daily check list 6. Lifting equipment register |
| Security | Unauthorised access | Access to the crane base and cabin must be locked when not in use to prevent unauthorised access. |
| Communication | Failure to follow command requirements when load shifting | Two-way radios are to be used at all times between the crane operator and dogmen, radio channels are to be “private” and only open to the crane crew.  If required a site two way will be provided to allow communication to the crew on a separate channel |
| Amendments | Changes to work procedures | Any failure of and or amendments to this SWMS are to be communicated to the site management immediately for revision and re issue |
| Inspection | Failure | The crane driver will complete the daily inspection sheet and report any defects to the site management  The site management is to ensure prompt action if the defects are not rectified in a reasonable time frame then the crane will be removed from use  In the case of any serious defects that may cause a malfunction of a risk to the operators then the crane is to be removed from use by the crane driver |
| Maintenance | Falls, injuries | Only the trained operators are to undertake maintenance tasks  The crew is not permitted to enter any area of the structure which has not been provided with pedestrian access including hand rails  At no time is the crew required to access areas requiring the use of fall arrest equipment |
| Supervision | Persons not following directions | The crane driver will monitor and report any failures to comply with this SWMS and any unsafe work processes to the site management.  The crane driver has the authority to cease operation without fear of reprisal at any time. |
| Electrical lines | Electrocution | All power lines must be identified and precautions must be taken such as spotter, tiger tails or moving the lines in consultation with the electrical supply company  When working near overhead lines have the overhead line switched off by the responsible electric supply authority.  Voltage minimum approach distance  Up to 132,000V 3m  Above 132,000V up to 330,000V6m  Above 330,000V 8m  If voltage is not identified 8m  It is important to take into account the swinging of the overhead line and of the wind.  If this minimum clearance cannot be complied with **IN ALL POSSIBLE WORKING POSITIONS, ALWAYS** consult the local electricity supply authority |
| Working radius | Impact, loads over public areas | Identify the radius of your crane, ensure   1. Free to slew without impacting any structure or other crane 2. You can operate without lifting a live load over any public area   The crane can weather vane after hours or during inclement weather |
| Multiple cranes | Impact | Tower cranes working in same radius   * Drivers will have direct communication via 2 ways * Drivers will alert each other in case of potential collision   Mobile crane working in radius   * Height of tower crane will be provided to mobile crane for sick height * Spotter dog man will have direct communication with both tower and mobile crane drivers   Dog man will observe both mobile and tower crane to alert each in case of potential collision |
| Work tasks | Injuries | Each person of the crane crew are to perform one single activity at a time |
| Interference with the crane by other trades | Violence | At no time will the crew engage in any discussion, argument or abuse as the movement of the crane is the responsibility of the site management and they will need to resolve the crane movement issue.  In the event of any interference or hindrance such as holding the chains of sitting on loads the crane will switch off and the site manager will be called to the area to resolve. |
| PPE | Visibility and personal protection | High visibility clothing, hard hats, footwear, gloves, sun glasses and sun screen are to be provided by your employer free of charge |
| Hazardous materials | Workers exposing themselves and the public to risk | Store all flammable material in safe storage area nominated by the Builder  Do not smoke or use naked flames around petrol. diesel or grease  Do not store combustible material such as rags, paper and hydrocarbons in the cabin  Follow all safety recommendations provided by manufacturers do not lift hazardous material of different classes together |
| Mobile phones | Attention to the work task | Do not use mobile phones when undertaking load shifting tasks |
| Wind conditions | Load failure | The crane driver must cease work when wind speed limits have been reached or when wind is causing the loads to become unstable.  Crane work will cease if it is deemed too dangerous. This will be determined by the dogman/crane driver’s discretion and material being moved and in which direction. |
| Inclement weather | Operator safety | Rain/lightning – cease work  Heat   1. If the air temperature reaches 36 degrees on a deck of a site then workers will move into the shade 2. In the event that in the shade the air temperature reaches 36 degrees then workers will work in areas as directed by the site manager   If the humidity level reaches 75% or more the same process will apply as above. |
| Lifting equipment | Failure | All lifting equipment must be in good serviceable condition suitable for the task.  Stored in a dry clean environment.  Inspected prior to use and tested and certified as requires  Ensure the SWL is never exceeded including the additional limits imposed by the technique used to secure the load  All lifting equipment must be included in the lifting equipment register and inspected monthly by the crane driver |
| Traffic control | Impact | The crane crew will check that traffic management is in place to ensure pedestrians and vehicles do not enter the crews working area and personnel are not at risk of moving vehicles when undertaking load shifting tasks  The crane driver will enforce compliance |
| Manual handling | Strains and sprains; injuries such as back damage | Exercise care when manual lifting of shifting loads, use techniques such as sharing the load or utilise mechanical leverage  “Limber up” prior to commencing work so as to prepare for bending and twisting  Always bend the knees to avoid injury to your back |
| Climbing the tower | Fatigue, falls | The crane crew may climb the tower without the use of fall arrest equipment with a minimum of 3-point contact at all times, a back pack must be used to carry personal items |
| Access to areas such as decks and slabs | Falls | Employees are not permitted to work in any area that exposes them to a risk of falls of over 2m, you must remain behind hand rails and the leading edge managed by the formwork contractor |
| Injury | Employee will report any unsafe work area to the supervisor and cease work in the area till made safe |
| Injury | Deep beams and slabs are to be provided with bridging sheets to avoid slips through REO steel do not attempt to cross unprotected beams or deep slabs. |
| Slips/trips & nail stick | Employees are not to work on slabs where they are exposed to slip and trip hazards or nail stick injuries  Employee will report any unsafe work area to the supervisor and cease work in the area till made safe.  Material is not to be landed any closer than 3 metres from the live edge on a formwork deck. |
| Lifting of loads | Persons beneath load | Loads will not be lifted over persons  You must alert persons to suspended loads overhead |
| Lifting of loads | Crush and pinch injuries | Ensure body and limbs are clear of load and lifting gear prior to lift.  Do not stand or place hands between the load and a fixed location  Only the dogman is to direct the crane driver  Unauthorised persons must not be in the lift area  Inspect all loads prior and immediately after lifting to ensure no loose material is attached to the load that may dislodge when being positioned  Use a required number of lifting points to ensure stability and security of the load in case failure of a lifting point or equipment  Use tag lines to distance yourself from the load and control loads during lifts as required by the crew  All palletised loads must be lifted in a cage suitable in size to prevent material falling  If required, use cling wrap to contain the material being lifted. EG so debris does not fall out of bin while lifting. |
| Guiding loads | Crush and pinch injuries | Tag lines shall be attached to loads that require steadying or guidance while suspended.   * The load must be well secured and properly balanced in the sling or lifting device. * The guiding of loads by hand for fine placement where tag lines are not practical the following shall apply * The load must be within 300mm of the final placement of the load. * The person directing the load must be a competent dogman or rigger * A person(s) shall not place any part of their body between the load and a pinch point * A person shall not place themselves in the shadow of the load.   The guiding of loads through narrow openings by hand where tag lines are not practical due to snagging the following must apply   * The load must be within 300mm of narrow opening * The person directing the load must be a competent dogman or rigger * A person(s) shall not place any part of their body between the load and a pinch point   A person shall not place themselves in the shadow of the load. |
| Sight of load and communication | Danger from uncontrolled loads | Crane driver will ensure the load is in clear vision and sight by the crew at all times  The crew will ensure communication with each other at all times |
| Unloading vehicles | Falls from heights | Access to the deck of trucks is permitted by the use of a step ladder.  The maximum height of unguarded decks is 1.8m  You must not climb on the truck loads; higher loads must be removed by forklift from the truck prior to attaching slings and chains  Care must be taken to ensure loads do not move when being loosened and removed from the truck  Barriers or road cones must delineate the work area around vehicles being unloaded on roads  Traffic control must be provided if within 3m of any passing vehicles  Traffic must be stopped when persons are on the tray of unguarded trucks and or when load shifting  If required, loads on trucks that are considered too high for the dogman, the Manitou is to unload the material to the ground for the |
| Moving loads | Injuries | Check for clearances prior to the load shifting  Aim to avoid lifting over persons and occupied areas such as sheds  Do not lift over the public space. Lift over the hoardings  Keep communication with the person observing the load at all times  Operate in a smooth manner, always consider   1. Deflection of the boom 2. Wind gusts 3. Other equipment that may enter your path 4. The weight changes when using kibble buckets 5. Multiple lifts and the live loads   Use Tag lines if required |
| Placing loads | Collapse | Ensure the area to place the load is suitable   1. Formwork deck is complete and supported 2. Not near excavations or uncompacted fill always observe the 45 degree rule 3. Spread the load by using packers 4. Once the lift has stopped, unhook the chains, pull the hooks through so that they are visible to the dogman and clear of the load. The dogman must watch the hooks and chains when crane is hooking up to make sure chains and hooks do not get caught on anything. 5. The dogman is not to stand in confined areas when landing a load. The area must be clear in the event a load has shifted or slipped. 6. The dogman is to use his discretion on whether to double stack material if safe. Ground conditions, material etc must be taken into consideration.   Chock and secure any loads that may roll or overbalance prior to unhooking the load. Check before unhooking chains completely when the lift has stopped. |
| Lifting points | Failure | Manufacturers lifting points must be inspected prior to use to ensure in good condition and within the date of certification |
| Use of a man box | Emergency procedures | The man box must be included within the lifting equipment register  The man box must be accessible at all times for emergencies  Persons using the man box must wear fall arrest harnesses  In case of emergencies the crane crew must ensure their own safety first |
| Emergency procedure | Injury to crew and others | In the case of a failure of equipment or an emergency situation the crane operator is to secure the equipment and evacuate the crane cabin quickly as possible while notifying the site management and sounding the horn to warn others.  If permitting the crane must be positioned to avoid impacting upon public areas or other workers |
| Neighbouring crane | Impact | Observe neighbouring crane for any load intrusion into the radius, cease work and report incidents to the site manager immediately.  2 way radios are to be used to communicate between the cranes when jibs get close to each other. |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Worker(s)** | **Worker signature(s)** | **HR Ticket** | **Date** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |