Generic Risk Assessment

January 2020

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Hazard No	Hazard
1	Working on Site / Customer Premises
2	Operative / passers-by being injured by work
3	Mobile Cranes
4	LIFTING GEAR: - Slinger / Signaller
5	Lifting of Pipework and Equipment
6	Access & Egress
7	Non-Wearing PPE
8	House-keeping - General Tidiness
9	Work at Heights
10	Excavation / Trenching
11	Scaffolding
12	Mobile Tower Scaffolds
13	Ladders
14	Machines - ie. servicing, breakdowns etc.
15	Site vehicles & mobile plant.
16	Site Dumpers.
17	Teleporter.
18	180˚ Excavator
19	360˚ Excavator
20	MEWP
21	Portable Electric Tools
22	Non destructive Testing – Ionising Radiation
23	Electric Drills & Portable Drills
24	Pneumatic Hammers & Tools. - Compressors
25	Compressed Air
26	Hilti Gun etc
27	Cartridge Tools
28	Abrasive Wheels including Angle Grinders
29	Hilti or Kango Jack hammer action units 100V
30	Cutting steel or plastic banding straps
31	LPG gas bottles
32	Hot Work ie. grinding
33	Portable Electricity Generator
34	Overhead power lines
35	Electricity
36	Burns
37	Fire
38	Petrol (for portable equip)
39	Manual Handling
40	Oxy Acetylene - Welding / Cutting Gear

Hazard No	Hazard
41	Individual Welding Units
42	Gantry Cranes.
43	Lathes.
44	Band Saw.
45	Pedestal Drill.
46	Noise
47	Chemical Use.
48	Circulation.
49	First Aid Equip.
50	Under-ground services - Gas, Electricity, Water, Sewer
51	Sub-contractors
52	Diesel oil & waste oils
53	Welfare on site - Food & Environmental Waste
54	Cleaning sites - Litter Picking
55	Leptospirosis
56	Bullying
57	Health Hazards
58	Eye Injury
59	Weather – Sun, Wind, Rain, Ice / snow
60	Visitor to Workshop
61	Public Accessibility to Workshop
62	Storage of Materials
63	Forktruck.
64	Fabrication of Pipework / Steelwork
65	Pipe Bender.
66	Threading Machine.
67	Iron Worker.
68	Use of Blasting Equipment
69	Use of Painting Equipment
70	Welding Fumes
71	Asbestos

Hazard No: 1	Working on Site / Customer Premises

Risk Associated

Unfamiliar layouts & procedures etc.

Increased risk of serious personal injury / fatality.

Fire / evacuation.

Delay in treating injuries.

Cuts. Eye injuries.

Electrocution.

Injury from machinery, plant and equipment.

Lack of hygiene facilities etc.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Specific Risk Assessments & Method Statements, as per requirements of Safety, Health and Welfare at Work (Construction) Regulations, 2013 to be carried out in advance of works.

Ensure all employees are familiar with the layout of the premises on which they work prior to work commencing. To be arranged as site starts. Foreman to deliver induction training to all personnel.

Ensure all employees are aware of general & specific hazards on those premises.

Provide and wear all necessary PPE.

Make provision for emergencies, first aid etc.

Welfare facilities to be arranged in advance of work start up.

Ensure drying facilities for clothes, and hot & cold running water is available in toilets.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

<table>
<tr><td>Hazard No: 2</td><td>Operative / passers-by being injured by work</td></tr>
<tr><td>Risk Associated</td><td>Crushing.
Head injury.
Fractures.
Cuts.
Bruises.</td></tr>
<tr><td>Risk Rating before controls</td><td>
<table>
<tr><th>Severity</th><th>Likelihood</th><th>S x L</th><th>Risk</th></tr>
<tr><td>3</td><td>2</td><td>6</td><td>M</td></tr>
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</td></tr>
<tr><td>Control Measures</td><td>Plan the work from a public & employee safety point of view in advance of all works.
Specific Risk Assessments & Method Statements, as per requirements of 2013 Construction Regulations, to be carried out in advance of works. Ensure adequate clearance around all working areas. Ensure that only authorised personnel are in the vicinity of the operation and that correct protective clothing is worn. Ensure that the task is supervised and controlled by a competent person. Use barriers & warning signs to mark off area if working in public areas.</td></tr>
<tr><td>Risk Rating with controls</td><td>
<table>
<tr><th>Severity</th><th>Likelihood</th><th>S x L</th><th>Risk</th></tr>
<tr><td>3</td><td>1</td><td>3</td><td>L</td></tr>
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Hazard No: 3	Mobile Cranes

Risk Associated

Serious personal injury.

Fatality.

Crushing.

Amputation.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

A competent person will maintain all cranes and lifting equipment.

All personnel concerned with the lifting operations must know the safe working loads and weight of objects to be lifted.

Will be operated only by trained/experienced CSCS certified persons.

The slinger/signaler in attendance will be fully trained through the Construction Skills Certification Scheme in accordance with Safety, Health and Welfare at Work (Construction) Regulations, 2013 (SI 291). and will be over eighteen years of age.

All operators, slingers/signallers will be trained with regard to the approved method of slinging and signaling on site.

Two-way communication between crane driver and slinger/signaler will be provided when appropriate to the safety of the operations.

A warning device used when operator unable to see load.

All statutory tests and examinations as required on cranes and lifting equipment will be carried out and certificates and records maintained (every 12months using the appropriate GA Form).

An inspection of the mobile crane to be carried out by a competent person with results of the inspection documented in Form GA2.

Only competent banksman to sling loads and signal to crane driver.

CSCS certified banksman to wear an alternative coloured jacket so as to easily identify him amidst the construction workers. (Preferably Orange). Statutory tests on cranes, chains, rope and lifting equipment is carried out by a competent before use, and the records maintained. An approved safe working load indicator will be used on jib cranes and inspected by a competent person before use, and when the crane is in use, will be inspected at intervals not exceeding one week, by a competent persons.

All certificates, services and maintenance records will be kept on record. Crane driver to ensure pads are placed under all outriggers prior to lowering them.

Risk Rating with controls

Defects to cranes must be reported immediately to site management where the crane will undergo the necessary maintenance work.

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 4	LIFTING GEAR: Slinger / Signaller

Risk Associated

Serious injury from falling objects or collapse of the Crane, pulley, equipment being lifted etc,

Electric Shock.

Strain / Sprain.

Fatality.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

1) All banksmen / slingers must be CSCS certified.
2) Check lifting gear daily and examine all wire ropes at frequent intervals for kings, frays and projecting needles.
3) No lifting gear must be used unless its safe working load is marked. The combined weight of load to be lifted and lifting gear must never exceed the safe working load of the crane.
4) Use only slings and lifting gear provided by your employer. Never use improvised slings or a single leg of a multiple leg sling.
5) Loads should be landed on to suitable bearers to avoid damage to lifting gear and to facilitate its removal.
6) Never tie knots in chains to shorten them - get shorter slings.
7) Ensure right pin is used in all shackles and the pin is properly inserted.
8) All hooks must either be an approved 'C' type or fitted with an effective safety catch to prevent displacement of the lifting gear.
9) Protect wire ropes and slings with soft wood or other suitable packing from the sharp edges of the load.
10) Always see that the crane hook is centrally placed over the load to prevent swinging when the load is being raised.
11) Take your hands away from chains and ropes before the crane takes the load and stand clear.
12) When signalling, stand where you can see the load clearly and where the operator can see you. Whenever possible face the operator.
13) Ensure that the load is lifted off the ground to see that it is free and correctly slung before hoisting.
14) Wear a safety helmet and high visibility clothing.
15) Make your signals clearly and distinctly use approved Code Signals. When the crane is operating, do not leave the area unless you have been relieved by a trained deputy.

    When the crane is travelling, ensure that you signal to the operator to warn him of obstructions on the route or awkward comers. Riding on loads is strictly prohibited. Back sling hooks when no load is carried. Do not allow lifting gear to be used for other purposes, e.g.: towing. When not in use, store your gear tidily off the ground.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 5	Lifting of Pipework and Equipment

Risk Associated

Falls from heights.

Entrapment.

Crushing.

Impact with machinery and/or site personnel.

Serious bodily injury / fatality.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

All works at height where a person could fall from height more must be carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations, 2013 (SI 291).

All personnel concerned with the lifting operations must know the safe working loads and weight of objects to be lifted.

Will be operated only by trained/experienced CSCS certified persons.

The slinger/signaler in attendance will be fully trained through the Construction Skills Certification Scheme in accordance with 2013 Construction Regulations and will be over eighteen years of age.

All operators, slingers/signalers will be trained with regard to the approved method of slinging and signaling on site.

Two-way communication between crane driver and slinger/signaler will be provided when appropriate to the safety of the operations.

Only competent banksman to sling loads and signal to crane driver. CSCS certified banksman to wear an alternative coloured jacket so as to easily identify him amidst the construction workers. (Preferably Orange).

Lifting plan to be drawn up where necessary and exclusion zone to be designated.

Ensure adequate fencing/warning signs/warning tape is erected to prevent persons from walking under lifting area.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 6	Access & Egress
Risk Associated	Tripping. Falling from Heights. Falling Objects. Plant and Machinery at Work Etc.
Risk Rating before controls	
Control Measures	Everyone will be able to reach their work safely, i.e. good roads, gangways, passageways, hoists, staircases, ladders and scaffolds. Overhead protection will be provided as necessary to prevent injury from falling objects. All walkways will be stable and free from obstruction, such as stored materials, waste and debris. Adequate barriers or other edge protection to prevent falls from open sides of buildings, gangways etc. will be provided. Holes and openings will be securely fenced off or securely fixed covers will be provided. The various sites will be kept tidy and materials stored safely. Proper arrangements will be made for collecting and disposing of scrap. Nails in timber will be hammered down or removed.
Risk Rating with controls	

Severity	Likelihood	S x L	Risk
2	3	6	M

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 7	Non-Wearing PPE
Risk Associated	Impact from flying particles. Head injury. Foot injury. Falls from height. Burns or skin irritation etc.
Risk Rating before controls	
Control Measures	Compulsory that PPE be worn on sites including safety footwear, hard hats, high visibility clothing, regardless of the type of construction works being carried out. The contractor will provide all other necessary Personal Protective equipment for the staff on site – such as hearing protection, eye protection, facial protection, weather proof clothing. All sub contractors must adhere to PPE usage on site. Safety signs will be posted to highlight this.
Risk Rating with controls	

Severity	Likelihood	S x L	Risk
2	3	6	M

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 8	House-keeping - General Tidiness
Risk Associated	Slips, Trips or Falls. Serious personal injury, fractures, burns etc
Risk Rating before controls	Severity: 2 | Likelihood: 3 | S x L: 6 | Risk: M
Control Measures	Include housekeeping in the planning of all operations by setting up control measures and regulating work practices. Safe access and egress to the site or work area must be kept clear so as not to cause blockage to evacuation and/or fire brigade access. Provide equipment to ensure all work areas are in a clean and orderly state including waste bins, cleaning equipment, storage areas etc. Include good housekeeping as part of every individual's job responsibility at all levels of the organization. Provide cleanup schedules and personnel when required. All goods should be stacked, stored and sealed in an appropriate manner. All open containers should be sealed and stored in the correct location. All waste/empty chemical containers must be disposed of in a safe manner and in accordance with the guidelines set out by EPA.
Risk Rating with controls	Severity: 2 | Likelihood: 1 | S x L: 2 | Risk: L

Hazard No: 9	Work at Heights
Risk Associated	Falls from heights. Materials / tools dropped. Serious personal injury. Fatality. Material damage
Risk Rating before controls	Severity: 3 | Likelihood: 3 | S x L: 9 | Risk: H
Control Measures	Only authorised personnel should be allowed to carry out work from heights and they must be properly trained. A protective handrail at a height of 950mm approx is required to prevent falls from heights around all roof edges or openings. Toe boards are required to prevent items falling from work area. Dropping or throwing of objects to the ground must be discouraged. Ensure work at height never takes place while work is going on directly underneath. Safety hard hats are compulsory. Ensure safe storage areas for all goods. Keep heaviest goods at ground or low level. Damaged pallets should be removed. Do not overload when lifting materials.
Risk Rating with controls	Severity: 3 | Likelihood: 2 | S x L: 6 | Risk: M

Hazard No: 10	Excavation / Trenching

Risk Associated

Falls. Entrapment.
Suffocation. Crushing.
Impact with machinery. Drowning.
Electrocution. Serious bodily injury.
Fatality.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Before ground work begins:

Verify ground conditions and soil type before excavating.
No ground to be considered safe until investigated by a competent person eg. Foreman, etc.
Schedule work so that excavations are not open for any longer than necessary.
Find, locate and mark all underground services.
Ensure adjacent buildings, roads, footpaths and scaffolds, etc. are not undermined.
Appoint competent person to supervise work.
Organise suitable plant, equipment and required working space.
Organise delivery and inspection of support materials and ladders.
Provide appropriate protective clothing and equipment.
Provide suitable barriers.
Prevent access especially of children.

During work:

Arrange inspections and suitable record keeping.
Organise a balanced workforce and avoid overcrowding in a trench.
Arrange adequate fencing, lighting and warning signs around the excavations.
Arrange safety stops for all site transport near trench areas or excavations.
Check regularly for "unseen hazards", e.g. noxious gases and fumes. Install an evacuation procedure.
Plan and prepare for safe backfilling activities.
Maintain tidy work areas at all times.

Ensure that:

All work in excavations & trenches to conform with established standards + regulations.
Sheeting, walling and strutting can be carried out with traditional materials or with hydraulic struts. Proprietary support systems e.g. hydraulic frames boxes etc. can be used.
Materials are placed at least 1.0m from the edge of the excavation. Precautions are taken to prevent materials from falling into the excavation.
Excavations 1.25m or deeper are shored or sloped back to an angle of repose. Any excavation in unsuitable soil is shored or sloped back even if less than 1.25m.
For deep excavations the sides have to be benched.
Each excavation is inspected daily by the appointed competent person.
If any hazard exists, all work ceases until precautions are taken to safeguard employees.
Where vehicles or equipment operate near excavations, the sides are shored or braced to withstand the forces exerted by any superimposed load. Also stop blocks or other substantial barricades are installed at the edges of such excavations.
Materials used for sheeting, shoring or bracing are in good condition. Timbers are sound, free of large or loose knots, and are of adequate dimensions.
Safe access and egress is provided for all excavations by means of ladders, stairs or ramps.
Walkways or bridges with standard handrails are provided where employees or equipment are required to cross over excavations or trenches.
In location where oxygen deficiencies or concentrations of hazardous or explosive gases or dust are impossible to remove, the atmosphere in the excavation is tested prior to start of work and at intervals, as required.
Safe systems of work are devised for all stages of excavations + adequate supervision maintained.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 11	Scaffolding

Risk Associated

Scaffolding collapse causing damage.
Fall of person from height.
Serious personal injury.
Fatality.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

Scaffolding may only be erected, altered and dismantled by competent persons.
All scaffolding to be erected in accordance with the HSA Scaffolding Code of Practice 2009 & the Safety, Health and Welfare at Work (Construction) Regulations, 2013 (SI 291).
A competent person must inspect the scaffolding regularly. i.e. at least once a week and always or after bad weather.
Competent persons must have a minimum of the CSCS certification for 'scaffolding -basic' card for scaffold erection which is issued by FAS, the Training & Employment Authority.
The results of inspections will be recorded (including defects that were put right during the inspections) in the GA3 form and the records signed by the person who carried out the inspections.
Effective barriers or warning notices to stop people using an incomplete scaffold (e.g. one that is not fully boarded) will be erected.
There will be proper access to the scaffold platform.
All uprights will be provided with base plates, and where necessary, timber sole plates, or prevented in some other way from slipping or sinking.
The working platforms will be fully boarded. Boards will be free from obvious defects such as knots, and arranged to avoid tipping or tripping.
Adequate guard rails and toe boards, at every side from which a person could fall, will be erected and in particular where one can fall from height.
Where the scaffold has been designed and constructed for loading with materials these will be evenly distributed.
The distance between the putlogs will not be more than 1 metre where planks of 32mm thickness are used, 1.5 metres where planks of 38mm thickness are used & 2.4 metres where planks of 50mm thickness are used.
Wheeled scaffolds will only be used on firm and even surfaces.
Suspended scaffolds will be closely boarded or planked at least 600 mm wide if used as footing only & at least 800 mm wide if used for materials.
Always: Check scaffolding prior to use for its safety and security.
Joints should be checked to ensure crossbars and uprights are tightly secured.
Guardrails and toe boards must be fitted if working at height.
Foot ties should be as close to the wheels as possible.
Swivelling castors with brakes should be secured to the uprights (keep brakes on when in use).
Ensure the working platform base to height ratio is at least 3:1 external, 3.5:1 internal.
Ensure the working platform has close fitting boards, and has evenly supported kick boards, handrails and proper secure ladder access.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 12	Mobile Tower Scaffolds
Risk Associated	Falls from heights. Falls as a result of not using access ladders. Scaffold not adequately tied or outriggers not used. Falling materials. Collapse of structure. Unsuitable base. Scaffold not built correctly.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	Mobile tower scaffolds must be tied rigidly to a structure if heavy materials are to be lifted up the outside of the tower or the height to least base ratio exceeds 3.5: 1. Height measured from ground level to working platform. Least base width = shorter side of tower. Towers should only be used if they are structurally complete. If incomplete, a warning notice should be fixed or the scaffold dismantled. Contractors should only use their own scaffolding or scaffolding which they have specific permission to use. If in doubt about the ownership of a scaffold do not use it. Wheels are to be locked at all times on mobile tower scaffolds. Brakes should only be disengaged whilst moving scaffolds and re-engaged immediately afterwards. Mobile tower scaffolds are only to be used on firm and level ground. Access ladders must be provided and used on all mobile tower scaffolds. Climbing up on the scaffold is strictly prohibited on site. Do not lean a ladder against a mobile tower scaffold to gain access, this may cause the scaffold to overturn. Mobile tower scaffolds are not to be moved with people or materials on the working platform. Guardrails are to be provided in all cases for mobile tower scaffolds and toeboards must be fitted. All mobile tower scaffolds where a fall from height is possible must be inspected once every seven days by a competent person and a GA3 form filled out. Never ride on the tower when being moved. Checklist for regular inspections: All components present and in good order. Do not overload the tower. Frame interlocking clips secure. Height to base ratio within limits. Wheels locked and correct bracing. Guardrails and toe boards present and secure. If incomplete warning notices fixed. Proper access ladders provided.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 13	Ladders

Risk Associated

Falls from heights.
Materials / tools dropped.
Serious personal injury.
Fatality.
Material damage.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

INDUSTRIAL TYPE LADDERS ONLY TO BE USED.
Before starting work, a risk assessment must be carried out to determine the correct form of access.
As a rule, ladders should not be used to work from. A more suitable work platform should be used (i.e. scaffold tower).
Ladders must be checked before use for cracks, loose or missing rungs, damage, missing stays, rungs supported by nails, screws, decayed timber or corrosion of fittings. If any of the above mentioned is detected the ladders must be taken out of service.

ALWAYS:
Use the ladder at the correct angle (1 metre out for 4 metres high) or 75°.
Use ladders which are strong enough for the job.
Tie off the ladder and foot it at the ground if possible.
Place the ladder on a firm level base.
Extend the ladder at least 1 metre above the landing.
Face the ladder when climbing.
Keep both hands free to grip.
Wear footwear with good grip.
Move ladder along with work to prevent overreaching.
Provide an immediate stage if ladder or run of ladders is greater than 9m.

Never:
Paint or treat a ladder in a way that would hide or conceal defects.
Over reach from a ladder.
Carry materials or tools while climbing a ladder.
Never use a warped ladder.
Use a metal ladder if working near overhead power lines.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 14	Machines - ie. servicing, breakdowns etc.

Risk Associated

Trapping.
Cutting.
Pinching.
Entanglement.
Shearing.
Burns.
Ejection of machinery.
Crushing.
Burning.
Impact & eye injuries.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

All machinery to be guarded to the required standards where necessary. Extreme care to be taken when adjusting or maintaining equipment. Only qualified or authorised personnel are allowed to switch out interlocks, remove fixed guards, clean, inspect or carry out maintenance work on any machinery.
Any guards removed must be replaced before starting the machine.
Before use, check the equipment conforms to the manufacturers specifications. Where training has been given on how to use & operate the machinery, the operator involved must thereafter carry out his procedures in this manner. Proper maintenance is essential for safe use. Make sure that the equipment is regularly and thoroughly examined by a competent person. Any maintenance work should only be done by those who have received adequate information, instructions and training relating to that work.
Components which are found to have failed or are likely to fail before the next periodic check should be repaired or replaced. This planned preventative maintenance is to prevent failures occurring while the equipment is in use.
It is recommended that a record of maintenance be kept for each piece of equipment to provide information for future planning, parts inventory and costing of downtime or repairs.

Always:

Heed warning signs.
Wear appropriate protective personal equipment if required.
Wear appropriate hand protection when handling machinery or lubricating oils if this is necessary.
Ensure that power to the plant and machinery is isolated and locked off before guards or safety devices are removed for any reason.

Never:

Restart a machine where the guards have been removed – unless appropriate provisions have been taken.
Place your own safety or that of anyone else at risk whilst operating a machine.
Operate a machine with loose clothing, insecure belts or ties, and loose hair that is unsuitably protected by headgear.
Wear rings or loose jewellery.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 15	Site vehicles & mobile plant.
Risk Associated	Falls. Entrapment. Crushing. Impact with machinery. Serious bodily injury / fatality. Collision.
Risk Rating before controls	
Control Measures	Operated only by trained and certified drivers. All personnel must wear safety footwear, high visibility vests and hard hats when working with moving equipment. Keep in operators' line of view. Never race machinery. Don't travel on equipment, unless it is specifically designed for passengers Never operate controls of machinery unless driver is seated on machine. Provide safe site entry and exit points with adequate turning room and visibility for vehicle drivers. Good visibility and lighting is especially important where vehicles must come close to pedestrians. Where necessary, provide a banksman or signaler. Aim to keep pedestrians separate from vehicles by, for example, providing separate site entry and exit points and barriered footways. Consider a one-way system and avoid the need for vehicles to reverse wherever possible. Where reversing is necessary, consider fitting audible reversing alarms to vehicles. Make use of banksmen or signallers to control high-risk situations such as reversing or where visibility is restricted. Ensure banksmen or signallers wear high visibility clothing. Train the drivers of all vehicles and make sure visiting drivers are informed about site transport rules. Set out clear routes across the site avoiding sharp bends, blind corners (suitably placed mirrors aid visibility), narrow gaps, and places with limited headroom, overhead cables, steep gradients & excavations. Provide extra lighting if the area is poorly lit. Keep plant & vehicles properly maintained. Make sure this is done safely. Never use makeshift jacks to support vehicles during maintenance. Make sure vehicles are not overloaded as they may become unstable, difficult to steer or have their braking efficiency impaired. Arrange vehicle loading and unloading areas to ensure people do not have to remain on the vehicle. If it is necessary for someone to stay on the vehicle, a safe place should be provided. Do not let anyone ride on vehicles or mobile plant except where a seat or other safe riding position has been provided. Use flashing amber beacon when operating in public areas or near public roadways. Make sure loads are securely attached to vehicles. Provide level areas for parking & ensure parking brakes are applied.
Risk Rating with controls	

Severity	Likelihood	S x L	Risk
3	3	9	H

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 16	Site Dumpers.
Risk Associated	Collision. Falls. Entrapment. Crushing. Impact with other machinery. Machine overturning on soft ground. Materials falling from a height. Contact with electrical cables. Serious personal injury. Fatality.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | H
Control Measures	Operated only by trained and certified drivers. Roll bars to be fitted to all site dumpers. All personnel must wear safety footwear, high visibility vests and hard hats when working with moving equipment. Before operating the machine, become familiar with it by reading the operator's manual and performing a basic walk-around. A daily maintenance check should also be done to ensure a safe and trouble-free machine. If a problem is found, notify supervisors immediately, and do not attempt to operate the machine. No passengers allowed travel on machinery. When unloading at dump points and excavations always ensure that adequate material beams/stop blocks are in place. Before tipping a load, make sure that the truck is on sound and level ground. Handbrake must be on and dumper out of gear before tipping. Never travel around corners at speed. Always drive straight - both up and down hills, and turn only on level ground. Special care must be taken on ramps, embankments and near excavations. The safe working load (S.W.L.) of the machine must never be exceeded. Never carry loads that obstruct the driver's forward vision. Always travel with body/skip in the lowered position, both laden and unladen. Don't overload a trailer or stack it too high. Secure any loose loads. Always adhere to safe parking procedures. Make sure the hand-brake and key is removed if leaving machine. Report any faults immediately. Never use a machine unless it is well maintained. Keep away from moving machinery. Long hair must be tied, jewellery and loose garments must not be worn when working near moving parts of machinery. Do not overload dumpers and ensure loads are secure before moving. When traveling on public highways make sure machine is road worthy. Ensure flashing beacon and reversing beeper is on dumper. The operator must follow the correct mounting and dismounting procedures, using the handholds and steps provided.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 17	Teleporter.

Risk Associated

Collision.
Machine overturning on soft ground.
Personnel being tipped out of work cage.
Materials falling from a height.
Contact with electrical cables.
Serious personal injury.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

Operated only by trained and certified drivers.
All teleporters must be certified every 12 months.
Operators to have specific training for attachments.
Operators must read & follow the manufacturer's handbook.
Machine should only used for its intended purposes.
Ground conditions should always be considered for stability.
Safe work / load recommendations should be strictly observed.
Eyesight tests are mandatory for each operator and spectacles to be worn if necessary.
Vigilance by management for drug / drink usage.
Serviced by suitably qualified craftsmen.
The driver should check machines daily.
Only the driver is to ride on the machine.
Keep all vehicles serviced & in good repair, as is necessary.
Attachments should always be correctly & securely fitted.
Personnel only to be in work-cage when the outriggers are out.
Tilt disabler fitted and always engaged when man cage is in use.
Get assistance when operating where vision is restricted.
The machines should be fitted with flashing beacons and reversing beeper.
NOTE:
There are specific regulations regarding cages used on teleporters.
They must have integrated controls
They must be secured to the forks.
Must have permanent handrail all round.
Must have toe board all round.
Must be constant communication with the driver.
Driver must not leave the truck unattended.
Cage door, where fitted, must be self-closing and open inwards.
Occupants must be wearing harnesses and be tied off inside the cage.
May require protection overhead.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 18	180˚ Excavator
Risk Associated	Collision. Falls. Entrapment. Crushing and Entanglement. Poor Visibility. Impact with other machinery. Machine overturning on soft ground. Materials falling from a height. Contact with electrical cables. Serious personal injury. Fatality. Fire. Noise. Burns when servicing the machine.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | H
Control Measures	Only trained and certified personnel may operate machinery. ALWAYS BUCKLE YOUR SEATBELT AND MAKE SURE IT FITS SNUGLY AROUND YOUR WAIST. The machine must be checked out by the operator at the start of every working day/shift, Normal diesel/engine checks must be carried out at the start of every working day. Any defects must be reported to the employers/supervisor. Operators must always look in direction of travel. Passengers must never be carried unless machine is designed to do so. Safe access must be provided to all excavators. All underground services must be located and clearly marked before commencement of work. Overhead power lines must be identified and made safe. All personnel should be trained in manual handling techniques. Ensure good housekeeping within cab of excavator, store spare parts, tools in designated place. Warning devices must be clearly visible at all times. All personnel must keep clear of swing radius of excavator. Care must be taken when operating near deep excavations, overhangs or cliff edges. Trench protection must be used at and below 1.25 metres. Operators should never overload lorry's, dump trucks etc. All lifting gear must be of good design and construction, safe working load must be clearly stamped. All attachments must be free from defects and must be properly attached to the machine. Safety pins must always be fitted to quick hitches. No modifications can be made to plant or equipment without manufacturers approval. When not in use, excavator should be parked in a safe place, with all attachments lowered to the ground. Adequate protection (gloves) must be worn when servicing the machine or checking hot machines. If stabilisers are fitted they should be used. Non-slip covers must be replaced when damaged or worn. Breaks must be checked, support leg must be down i.e. jacks. Hand breaks must be engaged when operating back hoe. Access to and from the machine must only be from the designated door of the machine Note: Not from the back window. Personnel must keep clear of and never pass under raised loader. Machine must be in compliance with the current road safety.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 19	360˚ Excavator
Risk Associated	Collision. Falls. Entrapment. Crushing and Entanglement. Poor Visibility. Impact with other machinery. Machine overturning on soft ground. Materials falling from a height. Contact with electrical cables. Serious personal injury. Fatality. Fire. Noise. Burns when servicing the machine.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | H
Control Measures	Operated only by trained and certified drivers. All personnel must wear safety footwear, high visibility vests and hard hats when working with moving equipment. ll underground services must be located and clearly marked before commencement of work. Before operating the machine, become familiar with it by reading the operator's manual and performing a basic walk-around. A daily maintenance check should also be done to ensure a safe and trouble-free machine. If a problem is found, notify supervisors immediately, and do not attempt to operate the machine. To prevent the engine from stopping during a lift or during excavation (with the possibility of a dangerous situation), check the fuel level to make sure the tank is full. To eliminate the possibility of a trench cave-in, don't undercut the tracks during excavation. Before lifting, know the lift capacity of the machine, to prevent the possibility of a tip-over. Check the security of the chain or hoist, and never use a bucket cylinder rod as a lifting point. Attachments must be correctly & securely fitted. Keep in operator's line of view. No passengers allowed travel on machinery. Machine only used for its intended purposes. Ground conditions always considered for stability. The tracks should be on firm ground that won't give way during operation and the machine should sit as horizontal to the ground as possible. This will reduce the likelihood of tip-over and also provide stress-free work for the operator. Eyesight tests mandatory for each operator and spectacles to be worn if necessary. Get assistance when operating where vision is restricted. Serviced by suitably qualified craftsmen. Keep all vehicles serviced & in good repair, as is necessary. Truck maintenance to be carried out by competent craftsmen. Fit flashing beacon and reversing beeper. Long hair must be tied, jewellery and loose garments must not be worn when working near moving parts of machinery. All lifting gear must be of good design and construction, safe working load must be clearly stamped. All attachments must be free from defects and must be properly attached to the machine. Safety pins must always be fitted to quick hitches. No modifications can be made to plant or equipment without manufacturers approval.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 20	MEWP
Risk Associated	Collision. Falls.Entrapment. Crushing and Entanglement. Poor Visibility. Impact with other machinery. Machine overturning on soft ground. Materials falling from a height. Contact with electrical cables. Serious personal injury. Fatality. Fire. Noise. Burns when servicing the machine.
Risk Rating before controls	
Control Measures	All work platforms must have a certificate of test and examination. Statutory forms must be in place including GA1 & GA2. The operator of the work platform must be competent, fully trained and certified. Before using the platform the operator should know. ● How to operate the platform. ● How to deal with emergencies such as loss of power. ● How to check the platform for damage. The safe working load. ● The safe maximum wind speed for operation. Before use the operator must check that ● The ground is prepared and conditions are suitable for the type of work platform to be used. ● There will be clear access to the work area for the work platform. ● The work platform will be protected from being struck by other construction traffic. ● Dangerous holes, steps or drops are fenced off. ● Precautions are in place to protect against contact with overhead power lines. ● A safety harness attached to the platform should be worn to protect against falls. ● A safety hat should be worn to protect against contact with the structure. ● The tyres are properly inflated. The outriggers must be extended and checked before platform is raised. Barriers must be placed around work platform, as necessary, to protect other workers from falling objects. Operator must only stand on the work platform area, and not on the guard-rail. Work platform must be in the lowered position before being moved. When extending the work platform, take care that fingers and arms are not in a position where they can be crushed between guard rail and the structure. When extending the work platform be careful of trailing welding leads and the danger of catching and crushing fingers. Never lean over the guard-rail when the work platform is being extended. When the work platform is descending the operator must make sure that other workers stand clear of the area. Work platforms must not be used to transport people or material around a site. Care must be taken not to overload the work platform. All tools and materials must be secured to the platform, when the platform is in use.
Risk Rating with controls	

Severity	Likelihood	S x L	Risk
3	3	9	H

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 21	Portable Electric Tools

Risk Associated

Serious personal injury.
Cuts.
Entanglement.
Eye injuries.
Electrocution and burns.
Slips and trips.
Trapping of fingers and toes.
Using defective tools.
Using unsuitable tools.
Using force rather than the power of the tool.
Working with hands in front of cutting edge.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

No person should attempt to use portable tools for which they have not received training in the safe use of that tool.
All tools should be inspected daily to check for obvious damage or defects.
Remove from use any portable tool that develops a fault or defect.
Ensure that only 110V is used to operate portable tools.
Ensure that electrical cables are routed so as not to cause a trip hazard, and where appropriate, place above head height.
All cables and connections must be of an industrial standard and suitably protected from accidental damage.
Eye protection must be worn when cutting, drilling or grinding.
Where there is a noise hazard ear protection must be used.
Never stand in a damp or wet surface when operating power tools.
Keep equipment clean and tidy.
Do not attempt to repair portable tools unless you are competent to do so.
Do not use portable tools near flammable liquids or gases.
Always unplug and isolate portable tools after use and ensure that cables are rolled up and stored in the appropriate place.
Do not use portable tools with blunt or broken cutting edge, extra force on cutting edges increases danger. Metal chisels with burred hammer face can cause cuts to hands, and splinters can fly off.
Use the power of the tool rather than applying added pressure which increases the risk of an accident occurring.
Keeping tools sharp increases the efficiency of the tool and hence decreases the need to force tools.
Hands should be kept behind the cutting edge at all times.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 22	Non destructive Testing – Ionising Radiation
Risk Associated	Serious personal injury. Exposure to radiation
Risk Rating before controls	Severity: 3 | Likelihood: 3 | S x L: 9 | Risk: H
Control Measures	Carried out by experienced personnel. Where possible NDT to be carried out off site Notice to all other contractors - Advance notice to be given to PSCS–48 Hrs Strict adherence to site rules and RPII Guidelines / regulations. Method Statement to be Obtained from Nominated Sub-Contractor detailing precautionary measures and control measures. Permit required. This type of operation will be planned to take place when the site is unoccupied or has the lowest possible occupancy rate. Signage posted indicating the hazards and additional controls required
Risk Rating with controls	Severity: 2 | Likelihood: 2 | S x L: 4 | Risk: M

Hazard No: 23	Electric Drills & Portable Drills
Risk Associated	Serious personal injury. Cuts. Puncture. Entanglement. Eye injuries. Electrocution.
Risk Rating before controls	Severity: 2 | Likelihood: 2 | S x L: 4 | Risk: M
Control Measures	Used only by experienced personnel or trainee under close supervision. Maintained in good condition. Always inspect before using i.e. cable casing & plug socket. Protected by a Residual Current Device. Voltage not over 125v allowed used in engineering or construction. Wear eye protection provided. Operated in dry conditions only. Do not wear gloves when using portable drills. Keep cables tidy - do not leave cables lying on the ground. Do not use electric drills with one hand - use both hands.
Risk Rating with controls	Severity: 2 | Likelihood: 1 | S x L: 2 | Risk: L

Hazard No: 24	Pneumatic Hammers & Tools. - Compressors
Risk Associated	Noise. Vibration. Serious personal injury. Eye injury. Penetration of skin. Dermatitis. Air entering body orifices causing severe and fatal injury. Horseplay. Whiplash of airline.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	Training & Information provided to all staff. Wear suitable ear protection & dust mask. Suitable eye protection provided & worn (impact grade glasses). Use of specified safety valves, hoses, and hose assemblies only. Mandatory signs installed where necessary. Compressed air never used for cleaning, always vacuum. Fitting of suitable noise reduction panels or air compressors. Provision of isolation valves at each outlet & junction. Make sure ends of airlines are secure. Compressors must be inspected and certified by a competent person, if they come under statutory controls.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 25	Compressed Air
Risk Associated	Serious personal injury. Eye injury. Penetration of skin. Dermatitis. Air entering body orifices causing severe and fatal injury. Horseplay. Whiplash of airline
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	Training & Information provided to all staff. Design, installation & maintenance to BS 6244 Code of Practice for stationery compressors. Use of specified safety valves, hoses, and hose assemblies only. Proper colour coding of all compressed air lines (light blue). Mandatory signs installed where necessary. Suitable eye protection provided & worn (impact grade glasses). Compressed air never used for cleaning - always vacuum. Fitting of suitable noise reduction panels or air compressors. Provision of isolation valves at each outlet & junction. Make sure ends of airlines are secure.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 26	Hilti Gun etc
Risk Associated	Fire. Explosion – fuel cells. Hearing Damage. Eye injury or loss. Serious personal injury.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Operated only by trained and certified craftsmen.
Operators must read and follow the manufacturers handbook.
Fuel cell protected from temperatures over 50o C, sunlight & sparks.
Before servicing, remove fuel cell, battery and all fasteners.
Never point the guns at self or anybody else.
Never operate the guns away from workplace.
Never used in rain or near moisture.
Never cover nose with palm of hand.
Used only in temperature range of – 7 oC to 50 oC.
Use only SPIT original clipped head nails in strips.
Keep the top open.
Always remove fuel cell and battery at the end of work and clean thoroughly.
Carried with fingers well away from the trigger.
Regarded as being full of fasteners always

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 27	Cartridge Tools
Risk Associated	Flying particles i.e. pieces of metal or concrete. Cartridge being too powerful for the task. Voids in the structure being fired into. Material being fired into being too thin. Changes in the consistency of the material.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Always ware safety goggles and ear protection.
Always hold the tool at right angles to the surface being fired into. Check the material into which the bolt is to be fired. Carry out a test fire first. Check that there is nobody behind the target. Allow at least 75mm from the edge of concrete or blockwork.
Ensure that the entire splinter guard is resting on the work surface.
NEVER place your hand over the end of the barrel.
In the event of a misfire - **WAIT** a minute & re-fire it.
If nothing happens, **WAIT** a further minute before unloading.
Keep the tool clean and well oiled.

NEVER leave the tool loaded when not in use. Cartridges **MUST** be kept under lock & key and in a safe place. Only cartridge tools of the low velocity and indirect type will be used on this site. All operatives required to use cartridge tools will receive instruction from the manufacturer's representative on their proper use.
Carried with fingers well away from the trigger.
Regarded as being full of fasteners always

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 28	Abrasive Wheels including Angle Grinders
Risk Associated	Wheels shattering at high speed. Serious facial / head injury. Cuts / wounds to hands, arms, upper-body. Eye injury / sight loss. Entrapment between wheel, work-rest, & work pieces. Fire & Explosion. Noise. Electric shock. Dermatitis (metalworking fluids). Vibration white finger. Respiratory (dust / fume). Injury to bystanders.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | H
Control Measures	PPE provided and its use mandatory especially full visors. (Safety Glasses under a face shield). Tidy clothing mandatory. Remove ties, rings, watch and other jewellery. Long hair should be tied back and loose sleeves should not be worn, do not wear gloves when operating a buffing, grinding or polishing wheel. Daily inspection by operator. Guards always in place. New wheels run free for 1 minute (all personnel standing clear). Easily accessible on / off switch. "Dead-man" switch fitted (angle grinders). 110volt equipment only to be used for angle grinders. Make sure the wheel guards are in place and properly adjusted and tightened. Do not adjust a grinder when it is running. Blotter and wheel flanges used to mount the grinding wheels on the shaft of the grinder, must be in place. Tool rests must be adjusted and tightened to ensure that there is less than 1/8 inch gap from the wheel. Wheels should be inspected prior to turning on the power. Wheels with cracks or chips, or that are badly rutted, should not be used. They may require dressing or permanent removal from service. Do not grind on the side of the abrasive wheel. Check that the speed rating of the grinding wheel is equal or exceeds the speed rating of the grinder. The maximum approved speed stamped on the wheel blotter should be checked against the arbour speed of the machine to ensure that the safe peripheral speed is not exceeded. Operation Before commencing grinding, allow the grinding wheel to run at operating speed for at least one minute. When commencing a grinding operation, bring object into contact with the grinding wheel slowly and smoothly avoiding impact or bumping motions. Move the object being ground, back and forth across the face of the wheel, as this prevents ruts or grooves from forming.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 29	Hilti or Kango Jack hammer action units 100V
Risk Associated	Electrocution. Cuts and abrasions. Serious personal injury. Damage to property. Vibration White Finger, WRULDS etc.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	Maintained in good condition. Machines to be regularly checked by competent person. Used by experienced personnel. Personal Protective Equipment provided and worn. Train users in associated dangers & methods of prevention of VWF. Purchase or hire equipment, which gives the operator the greatest protection from vibration. Restrict use of equipment to short periods. Practice work rotation. Have all plant and equipment checked and overhauled regularly.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 30	Cutting steel or plastic banding straps
Risk Associated	Cuts to hands / arms. Puncture wounds. Blood loss. Eye / face injury. Slip / trip / fall.
Risk Rating before controls	**Severity** 3 | **Likelihood** 2 | **S x L** 6 | **Risk** M
Control Measures	Wear suitable PPE when cutting banding. Gloves, face visor and hard hat or at the very least, safety glasses should be worn. Use the safety type of cutters available, which clamps the banding, while it is being cut, to prevent it 'springing'. Put cut strapping into the bin immediately – do not wait till you are finished.
Risk Rating with controls	**Severity** 3 | **Likelihood** 1 | **S x L** 3 | **Risk** L

Hazard No: 31	Gas bottles
Risk Associated	Explosion. Fire. Burns / fatigue/ nausea. Serious personal injury. Crush from falling cylinders. Asphyxiation, respiratory problems.
Risk Rating before controls	**Severity** 3 | **Likelihood** 2 | **S x L** 6 | **Risk** M
Control Measures	Proper safe storage practiced. Bottles to be chained in upright position. Adequate permanent ventilation to be provided. Prevent tampering by public. Equipment regularly serviced by competent person or company. Fire prevention system followed. Operated by trained and authorised personnel. Spark flowback arrestors always fitted to equipment and mains valve for quick shut off. PPE always provided. No smoking sign to be posted.
Risk Rating with controls	**Severity** 3 | **Likelihood** 1 | **S x L** 3 | **Risk** L

Hazard No: 32	Hot Work ie. grinding
Risk Associated	Burns / Fire. Permanent disfigurement. Loss of limbs, Fatality. Hot objects, liquids, steam.
Risk Rating before controls	**Severity** 3 | **Likelihood** 2 | **S x L** 6 | **Risk** M
Control Measures	Survey the work area and underneath the work area to cover or remove flammable materials. Provision of fire extinguishers and fire blankets. Provision of fire watch. Permit may be required at some facilities.
Risk Rating with controls	**Severity** 3 | **Likelihood** 1 | **S x L** 3 | **Risk** L

Hazard No: 33	Portable Electricity Generator
Risk Associated	Fire. Burns. Re-fuelling. Electrocution. Bodily injury. Back injury. Trip / fall.
Risk Rating before controls	**Severity** 3 | **Likelihood** 3 | **S x L** 9 | **Risk** H
Control Measures	Keep outside located away from LPG gas bottles & vans diesel tank. Fill petrol tank when the generator is cold. Allow half an hour after working before re-fuelling. Operate by trained personnel only. Maintained in good condition. Always inspect before use i.e. oil / petrol level, electric connections not broken. Located in dry position and away from pedestrian routes. Avoid spillages when re-fuelling and clean up any overspill. Ensure filler cap is securely replaced
Risk Rating with controls	**Severity** 3 | **Likelihood** 2 | **S x L** 6 | **Risk** M

<table>
<tr><td>Hazard No: 34</td><td>Overhead power lines</td></tr>
<tr><td>Risk Associated</td><td>Fatal electrocution.
Severe burns.
Breathing or heart failure</td></tr>
<tr><td>Risk Rating before controls</td><td>
<table>
<tr><th>Severity</th><th>Likelihood</th><th>S x L</th><th>Risk</th></tr>
<tr><td>3</td><td>2</td><td>6</td><td>M</td></tr>
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</td></tr>
<tr><td>Control Measures</td><td>Overhead lines must be protected by guards, barriers or ‘goal posts’ and safety warning signs, where necessary, to prevent danger.
All high vehicles, tipping lorries, cranes, cement mixers with conveyors or cement pump units must be accompanied by a responsible employee when working in the vicinity of overhead power lines or obstructions.</td></tr>
<tr><td>Risk Rating with controls</td><td>
<table>
<tr><th>Severity</th><th>Likelihood</th><th>S x L</th><th>Risk</th></tr>
<tr><td>3</td><td>1</td><td>3</td><td>L</td></tr>
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Hazard No: 35	Electricity
Risk Associated	Burns. Electrocution. Fire & Sparking. Serious personal injury. Damage to property. Trip / Fall. Leakage of current. Exposed conductors, defective cables. Incorrect voltage, equipment and leads. Incorrectly fused equipment. Tools not inspected regularly. Unauthorised persons carrying out repairs, installations. Flammable materials stored near to electrical equipment.
Risk Rating before controls	Severity: 3 | Likelihood: 2 | S x L: 6 | Risk: M
Control Measures	Before using any item of electrical equipment, a daily visual check must be carried out to ensure that there are no broken plugs or machine casings which, expose connectors, split cables, cracked or have thin insulation. All cables and installations must be inspected regularly, where there are signs of damage they must be taken out of use. Personnel employed to provide evidence of qualifications & experience. No employee will work, interfere or tamper with any electrical work, installation, fitting or fixture unless they are aware of what they are doing. All cables and connections must be of an industrial standard and suitably protected from accidental damage. Report any defects noted to tools and machinery immediately to supervision so that they may be remedied. Cables should be routed so as to avoid causing a trip hazard, and where appropriate should be routed above head height. The fuse in any tool or machine must be of the correct amperage, and make-shift fuses should under no circumstances be used. Under no circumstances is insulation tape be used to repair or join cables. Keep flammable materials at a safe distance from electrical equipment. Remove from use any portable tool that develops a fault or defect. 110Volt supplies only used on sites. **220 VOLT NOT ACCEPTABLE.** **CONTRACTORS NOT ALLOWED ON SITE WITH 220V EQUIPMENT**. With step-down transformers, ensure that the lead from the mains supply board to the transformer is 1m or less and is armoured. If a step down transformer is used it should to be located at power source Festoon lighting must be installed above head height. Empty sockets must not be left in lighting. All bulbs must be replaced as required. Transformers must be located away from areas that are damp or if there is a risk of encountering wet conditions. Never stand in a damp or wet surface when operating power tools. Keep equipment clean and tidy. Do not attempt to repair portable tools unless you are competent to do so. Do not use portable tools near flammable liquids or gases. Always unplug and isolate portable tools after use and ensure that cables are rolled up and stored in the appropriate place. All control panels to be kept closed & locked.
Risk Rating with controls	Severity: 3 | Likelihood: 1 | S x L: 3 | Risk: L

Hazard No: 36	Burns
Risk Associated	Permanent disfigurement. Loss of limbs. Fatality. Chemical or Electrical burns. Fire. Friction. Hot objects, liquids, steam. Cold objects, liquids, gasses.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
2	3	6	M

Control Measures

Proper PPE including suitable gloves provided.
Task related training provided. Training provided for staff working with chemicals.
Guards considered for exposed hot surfaces.
Audit undertaken to locate sources of excessive heat at the workplace.
Personnel to always check electrical equipment before use.
First aid facilities properly sited and maintained. Trained first aid personnel always on site.
Emergency procedure properly displayed and checked.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 37	Fire From petrol, electrical equip, hot work processes, powered tools, etc.
Risk Associated	Burns. Fume inhalation. Serious personal injury. Loss of lives. Damage/Destruction of buildings and property. Explosion.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Proper evacuation procedure for buildings always checked.
Call local emergency services (See safety statement).
Responsibilities of the staff must be defined.
System of fire extinguishers installed and maintained.
Training for all personnel in selection and use of fire extinguishers
Extinguishers always provided near sources of fire.
Fire points clearly identified & maintained.
Apply Hot Work safeguards when welding or grinding. Provide fire extinguisher.
Petrol MUST be stored safely & according to the 2000 Petroleum Regs.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 38	Petrol (for portable equip)
Risk Associated	Explosion. Skin & eye irritant. Dermatitis
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | H
Control Measures	Stored as per supplier's recommendations in steel fireproof container. PPE supplied, especially for hands. Fire extinguisher fitted near re-fuelling area. Used only by properly trained operatives. No smoking in storage areas or during usage.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 39	Manual Handling
Risk Associated	Back, Neck, Shoulder Injury. Prolapsed disk. Permanent injury. Trip / Fall. Hit against. Dropped object
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	Minimise all manual-handling tasks where possible. Provide suitable mechanical handling equipment: lifts, hand trolleys teleporter etc. Ensure these are used. Assess all weights being lifted, per the Safety, Health & Welfare (General Applications) Regulations 2007-2016 & reduce these to acceptable levels. Provide Manual Handling training to all staff. PPE including gloves, & boots or shoes with steel toecaps, to be provided.
Risk Rating with controls Measures	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 40	Oxy Acetylene - Welding / Cutting Gear

Risk Associated

Fire.
Explosion.
Burns.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

Used only by experienced operator.
P.P.E for eyes & body supplied.
Checked for leaks & damage before use.
Ignition according to manufacturers recommendation.
Plant or equipment being worked on to be checked in detail for explosive substances or gases.
Adequate fire fighting equipment provided & Staff trained to use this.
Use trolley to move gas bottles. Bottles to be secured to the trolley. Bottles chained in an upright position.
Remove flammable materials from work area before starting. Cover with fire blankets if required.
Watch out for others passing who could get splashed with molten metal.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 41	Individual Welding Units

Risk Associated

Serious Personal Injury
Damage to the building (fire)
Burns. Eye injuries
Fire. Electrocution
Fume inhalation. Leading to respiratory injury
Finger Injury (caught between electrodes).

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

Operated by trained personnel only.
Maintained in good condition.
Boiler suit, boots, gloves and suitable face shield/ eye protection to BS 679 provided.
Shield glass to be replaced regularly.
Contact lenses not to be worn (MIG)
Suitable shielded workspace provided to contain sparks and prevent eye injury to people nearby from the arc.
Fume extraction must be used at all times. Develop system of maintenance of this extraction system, at least every 14 months.
Check area for flammable materials and remove if possible. Ensure the area is free from flammable materials before welding.
Electrical welding plants must have industrial type plug and socket
Welding leads must be insulated.
Provide work piece earth when required.
Provide insulated electrode holders & insulated box for these.
Ensure electrical wiring is suitable for the current requirement. RCD's provided & local isolation switch.
Don't throw used welding rods on the floor, use a metal container.
Cover items which could get damaged with a fire blanket.
Keep a fire extinguisher near by.
Keep all large compressed gas bottles secured within the unit.
Do not wear metallic jewellery, rings, or watch straps.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Hazard No: 42	Gantry Cranes.
Risk Associated	Serious personal injury. Fatality. Crushing. Amputation.
Risk Rating before controls	Severity: 3 | Likelihood: 2 | S x L: 6 | Risk: M
Control Measures	A competent person will maintain all cranes and lifting equipment. All personnel concerned with the lifting operations must know the safe working loads and weight of objects to be lifted. Will be operated only by trained/experienced persons. The slinger/signaler in attendance will be fully trained through the Construction Skills Certification Scheme in accordance with 2013 Construction Regulations and will be over eighteen years of age. All operators, slingers/signalers will be trained with regard to the approved method of slinging and signaling on site
Risk Rating with controls	Severity: 3 | Likelihood: 1 | S x L: 3 | Risk: L

Hazard No: 43	Lathes.
Risk Associated	Chuck Key , work pieces, broken cutting tools, swarf can be violently ejected; loose clothing - entanglement; particles in eye; hand caught in chuck; impact injuries; electrical shock; sharp edges on tools, work pieces, contact with cutting fluids, oil and grease; lack of space; slippery floor; manual handling
Risk Rating before controls	Severity: 3 | Likelihood: 2 | S x L: 6 | Risk: M
Control Measures	Guards on chuck. Breaking time <10 seconds. Securely fixed to floor. Inadvertent restarting prevented. Safety Glasses used when in operation. Emergency stop button. Loose clothing, jewellery not worn by workshop. Swarf cleaned frequently. Machine positioned away from circulation routes. Gloves worn when in contact with metalworking fluids. Hands washed after use, Machine in planned maintenance programme. Trained personnel only use the lathe.
Risk Rating with controls	Severity: 3 | Likelihood: 1 | S x L: 3 | Risk: L

Hazard No: 44	Band Saw.
Risk Associated	Bruising, strains, sprains, limb amputation, broken bones, fractures, death, eye injuries, cuts skin irritation, shock, electrocution, burns
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	Safety guards in place restricting access to blade. Drive , pulleys, belts an gears are guarded. Blade guides adjusted for size of work piece. Emergency stop button. Worn or damaged blades are replaced. Eye protection is mandatory. Loose clothing etc not worn by toolmakers. Only trained personnel allowed to use. Work pieces securely held in vices and supported on rest. Machine fitted with an auto finished cut knock-off switch. Gloves worn when in contact with metalworking fluids. Hands washed after use. Machine in planned maintenance programme.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 45	Pedestal Drill.
Risk Associated	Bruising, Strains, sprains, limb amputation, broken bones, fractures, death, eye injuries, cuts skin irritation, shock, electrocution, burns
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 2 | 3 | 6 | M
Control Measures	Adjustable guards enclose drive mechanism. Chuck guarded. Eye protection is mandatory. Work pieces can be securely fixed Emergency stop installed, Trained Personnel only, Machine positioned away from circulation routes, Gloves worn when in contact with metalworking fluids,Hands washed after use, Machine in planned maintenance programme.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 2 | 1 | 2 | L

Hazard No: 46	Noise.
Risk Associated	Hearing impaired. Deafness.
Risk Rating before controls	<table><tr><th>Severity</th><th>Likelihood</th><th>S x L</th><th>Risk</th></tr><tr><td>3</td><td>2</td><td>6</td><td>M</td></tr></table>
Control Measures	Staff advised to leave area where high noise levels exist. Hearing protective equipment provided. Check all machines and workplaces for sources of excessive noise. Where practicable all machinery to be fitted with silencers. Undertake audiometry tests under the requirement of the 2006 Control of Noise Regulations. Mandatory hearing protection signs to be erected, where all loud equipment, machinery & processes exceed the 2nd & 3rd action levels. Reduction of operator exposure levels by reducing the amount of time spent near sources of excessive noise (job rotation). Remove people from noisy areas unless their presence is needed. Ensure hearing protection is worn for short-term noise exposures. Preventative maintenance on all equipment to identify loose or unbalanced rotating parts. Consider noise implications of all new plant and machinery. Ear protectors always to be worn when using the spit gun or saws.
Risk Rating with controls	<table><tr><th>Severity</th><th>Likelihood</th><th>S x L</th><th>Risk</th></tr><tr><td>2</td><td>1</td><td>2</td><td>L</td></tr></table>

Hazard No: 47	Chemical Use.
Risk Associated	skin irritation, lung irritation, burns, eye irritation
Risk Rating before controls	Severity: 2 | Likelihood: 3 | S x L: 6 | Risk: M
Control Measures	Chemicals are to be stored in appropriate area. Supplies of chemicals stored in the workshop should be kept to a minimum. Safety data sheets available on Central Drive, Appropriate PPE worn when using chemicals. Hand washing after use is encouraged, All containers are labelled, Eyewash & first aid facilities provided, Fire fighting and detection equipment provided. **PLEASE SEE CHEMICAL REGISTER FOR SPECIFIC RISK ASSESSMENTS, SAFE USE AND MSDS**
Risk Rating with controls	Severity: 2 | Likelihood: 1 | S x L: 2 | Risk: L

Hazard No: 48	Circulation.
Risk Associated	Slips, trips and falls hazards due to congested toolroom
Risk Rating before controls	Severity: 2 | Likelihood: 3 | S x L: 6 | Risk: M
Control Measures	Housekeeping standards maintained. Safety glasses must be worn. Safety shoes are required for entry to the workshop. A clean as go policy is in place and enforced.
Risk Rating with controls	Severity: 2 | Likelihood: 1 | S x L: 2 | Risk: L

Hazard No: 49	First Aid Equip.
Risk Associated	Worsening of condition. Onset of infection.
Risk Rating before controls	Severity: 2 | Likelihood: 2 | S x L: 4 | Risk: M
Control Measures	Adequate first aid kits located on site at all times. Filled to HSA guidelines. Regularly checked & refilled by supervisor on site.
Risk Rating with controls	Severity: 2 | Likelihood: 1 | S x L: 2 | Risk: L

Hazard No: 50	Under-ground services - Gas, Electricity, Water, Sewer

Risk Associated

Fatal electrocution.
Severe burns.
Breathing or heart failure.
Fire / Explosion.
Drowning / flooding.
Location of their exact position.
Damage to services

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Ensure that all information on existing underground services has been obtained from the main contractor, with the exception of the above, prior to works commencing on site.
Always assume that there are LIVE services present on site, even if existing drawings / information indicates that none are present. Do not assume that buried services are always given their recommended cover, cables may often be just at the surface. Treat all services found as LIVE. If there is any doubt, hand dig. Ensure that all services are physically located and marked by means of location equipment (i.e. a CAT scanner). Where practical hand-held power tools (i.e. Kango Hammers) should not be used to break the paved surface, within O.5m of the indicated line of a service. This may be reduced if the service has been positively identified in terms of both line and depth. When excavating near the indicated line of a service, carefully hand dig trial holes until the line of the service has been established.
When the excavator bucket is digging, other personnel should keep well clear of the bucket (N.B. near electrical cables).
Should a cable be struck the driver should stay in the cab. Should he have to leave the cab, he should jump down, not climb down - otherwise he may be electrocuted.
Where a gas leak is suspected the following action should be taken: Remove all people from the immediate vicinity. If a service connection to a building has been damaged, inform the occupants and the occupants of any adjoining building to leave the building until it is safe to return. Inform Bord Gais of the leak. Prohibit smoking and extinguish all naked flames and other sources of ignition, within at least 5m of the leak. Assist Bord Gais as requested.
When working near high pressure water mains, ensure that plans have been obtained. Use hand tools within 0.5m of the line of the main. Do not undermine thrust blocks as this may cause sudden failure of the main. Exposed water mains should be supported as necessary. If a water main is damaged the relevant authority should be contacted immediately, along with other service authorities that may be affected.
Before backfilling, place plastic hazard warning indicating tape, on top of service and indicate on a drawing the exact location of the buried service. Include a copy in the Safety File for client.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 51	Sub-contractors
Risk Associated	Falls - from scaffolding / ladders. Electric shock – cutting through buried cables. Respiratory problems – dust. Hearing difficulties.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

All Sub-contractors to be assessed per Form-002
Insurance details, Claims / Accident history & Safety Statement (or Method Statement, if this is required) to be provided to Murjoy Ltd. prior to commencement on site.
Proper on going monitoring of the contractors activities by the Site Foreman & Directors.
Evaluation of Sub-Contractors overall performance per Form-002B
Induction must be provided for all contractors and staff.
Ensure that all scaffolds & equipment are inspected regularly & results recorded.
Proper isolation of work areas by barriers and warning signs.
110 V supply to all portable equipment.
NISO & other recommended procedures to be strictly followed for all building work..

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 52	Diesel oil & waste oils
Risk Associated	Fire. Burns. Skin & Eye Irritant. - Dermatitis. Environment/ Slip / Fall

Risk Rating before controls

Severity	Likelihood	S x L	Risk
2	2	4	M

Control Measures

Stored as per suppliers recommendation.
PPE supplied, especially for hands and eyes.
Used only by properly trained operatives.
Do not let spills enter the drains.
Mop up spills immediately and dispose of the waste materials carefully.
Avoid direct contact with hands, wear gloves (barrier creams should only be used as a last resort). Wash hands after use.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 53	Welfare on site - Food & Environmental Waste (Bottles, Cans, paper, plastic etc.)
Risk Associated	Environmental Pollution spoilage of the environment. injury from hazardous substance containers. Biological diseases incl., "Weil's Disease".

Risk Rating before controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Control Measures

Toilet, canteen and drying room MUST be provided on site.
Wet weather gear will be provided for those who have to work in inclement wet conditions.
There will be suitable and adequate first-aid equipment and first-aid room in accordance with Section 11 of the Safety, Health and Welfare at Work Act, 2005.
An adequate and safe water supply will be provided.
All accommodation, washing facilities and sanitary conveniences provided will be properly ventilated, adequately lighted, kept in a clean and hygienic and orderly condition and shall not be used for the deposit or storage of building materials or plant.
All welfare facilities shall be in compliance with the Safety, Health and Welfare at Work (Construction Regulations), 2013 (SI 291).
All waste must be collected and discarded in a safe and secure manner.
Bottles and cans should be selected and sent for re-cycling as appropriate.
All waste food holding containers must be covered and sealed to avoid contamination by rodents and birds.
Staff must wear personal protective equipment.
Educate staff to dangers and methods of prevention of biological diseases and contamination.
Canteen to be tidied daily.
Rubbish, Rubble & waste to be removed off site immediately.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	0	0	LL

Hazard No: 54	Cleaning sites - Litter Picking (Glass, paper, cans, syringes etc.)
Risk Associated	Laceration - Cuts & Bruises. Infection. Lockjaw (Tetanus). Hepatitis.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	2	6	M

Control Measures

Litter picker to be used where possible.
Use appropriate PPE – Gloves, Overalls, Safety boots, good grip is essential.
Special care to be taken when handling broken glass or discarded syringes.
Keep glass and other sharp objects in separate rubbish bags to prevent injuring legs when carrying the bags.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 55	Leptospirosis
Risk Associated	Working in or near water -drains, sewers, rivers, watercourses, etc. Conjunctivitis, Meningitis, kidney failure, liver damage including jaundice. Transmission of infection is directly by contact with blood, tissues, organs or urine, or indirectly via a contaminated environment.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | H
Control Measures	Contracted from rat's urine. Absorbed into body through cuts, sores, wounds & food. Minimize exposure at source Measures e.g. by using remote devices to inspect sewers or clear blockage. Regular rodent control. Use of protective clothing – Gloves, overalls & boots. Good hygiene – eg. Protection of cuts, provision of good washing facilities and first aid arrangements. Training and information to make employees and their G.P's aware of the risk associated with their occupation. Vaccination is possible against some strains
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 56	Bullying by supervisors, individual - co-workers or groups of co-workers
Risk Associated	Effects on the Victim include: Emotional effects (severe anxiety). Cognitive (concentration) effects (making mistakes, having accidents). Behavioural effects (smoking, excess drinking, overeating). Physiological effects (contributing to raised blood pressure, heart disease).
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	The Company Anti-Bullying Policy must be enforced The Company policy must be enforced to increase awareness of the problem, inform operatives of the complaints system, and help staff to feel that their fears and complaints will be listened to and acted upon. Management should be wary of: -Increased absenteeism -Low motivation; -Reduced productivity. -Reduced efficiency; -Hasty decision-making and Poor industrial relations, which are often Indicators that bullying is taking place.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 57	Health Hazards
Risk Associated	Working with harmful materials and substances, e.g. asbestos lead etc. Unhealthy atmosphere e.g. confined spaces. Allergic Sensitisers, e.g. dust, toxic fumes etc. Serious personal injury. Fatality.
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M
Control Measures	The packaging of containers for substances hazardous to health will normally have descriptive labels showing the appropriate Health Hazard Symbol and instructions as to safety requirements for transportation, handling, storage and use. However this information may not be adequate. In addition, Safety Data Sheets (SDS) in respect of hazardous substances must be obtained from the manufacturer and displayed on site. All hazardous substances to be used on site should be clearly identified before use and where possible should be replaced with an equally effective but less hazardous substance. Employees who are required to use hazardous substances, must be fully informed of the risks involved and receive adequate instructions and be provided with the appropriate personal protective equipment, to safeguard their own health and safety and that of others. Persons working with concrete or wet cement must be advised of the risk of dermatitis if they do not take adequate precautions, including the wearing of waterproof gloves, clothing and footwear, as appropriate, to prevent wet cement coming in contact with their skin and where cement gets on to the skin it should be properly washed off as soon as possible. Where possible, dust-inhibiting measures should be taken, including dampening of floors and surfaces, vacuum cleaning and exhaust ventilation of power tools. Persons working in dusty conditions or where there is risk from toxic fumes etc. must wear respiratory equipment appropriate to the particular health hazards. In confined spaces, the atmosphere must be tested and a fresh air supply provided if necessary. Emergency procedures must be put in place for rescue from confined spaces. Before carrying out any work involving asbestos, expert advice should be sought as to the most effective safety procedures, personal protective equipment etc. before carrying out any work involving the removal of asbestos, the Health and Safety Authority must be notified in compliance with the Safety Health & Welfare at Work, 2005.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 1 | 3 | L

Hazard No: 58	Eye Injury
Risk Associated	Eye injury. Permanent damage to eyes. Loss of sight in one or both eyes.
Risk Rating before controls	Severity: 3 | Likelihood: 2 | S x L: 6 | Risk: M
Control Measures	Provide training re sight care & provide glasses, goggles & visors. Signposting locations where eye protection is mandatory. Supervisors / Managers to enforce mandatory wearing of eye protection especially for spit gun & angle grinder users - goggles are not good enough, wear full-face shields. Eye wash stations regularly maintained. Protection for chemical hazards to conform to BS2092:'67.
Risk Rating with controls	Severity: 3 | Likelihood: 1 | S x L: 3 | Risk: L

Hazard No: 59	Weather – Sun, Wind, Rain, Ice / snow
Risk Associated	Sun burn. Sunstroke. Skin cancer. Fall from height. Slip / fall. Bodily injury / Hit by object. Hypothermia.
Risk Rating before controls	Severity: 3 | Likelihood: 2 | S x L: 6 | Risk: M
Control Measures	In sunny weather, cover the back of the neck and keep a heavy shirt on at all times. Avoid sunburn and sun stroke where possible by keeping covered. Strong winds or gusts can overbalance an operator. Stop work if the winds rise to gale force. Heavy rain will make the ground soft, tree branches slippery and will act as a conductor of electricity. Do not work in heavy rain. Be prepared for slippery conditions in icy conditions.
Risk Rating with controls	Severity: 3 | Likelihood: 1 | S x L: 3 | Risk: L

Hazard No: 60	Visitor to Workshop

Risk Associated

Serious personal injury
Cuts / Puncture
Entanglement / Injury from machinery, plant and equipment.
Eye Injury
Electrocution.

Risk Assessment

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

All visitors to report to the Reception Office before entering the premises.
Those making deliveries must not enter the workshop area unless accompanied
No visitor to the premises is allowed to use company equipment without permission of the company management and instruction on its use.
Each visitor is requested to abide by the company Safety Policy and Regulations.
They must also abide by a request by a company employee in relation to their own Safety & Health and that of the company employees.
Any visitor who refuses to abide to a request by a company employee in relation to Safety and Health or who places his/her own Safety & Health or that of the company staff at risk by ignoring such a request or by any dangerous acts or omissions, may be asked to leave the premises immediately.
In the event of an Emergency or Evacuation all Visitors must report the designated Assembly Point at the main entrance and wait there for further instructions.

Risk Assessment With Controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 61	Public Accessibility to Workshop

Risk Associated

Serious Personal Injury / Fatality
Slip, Trips, Falls (over goods, materials, steps, stairs, etc)
Electrocution
Theft

Risk Assessment

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

Warning Signs to be posted to highlight the dangers involved
All access points to be controlled to prevent access to unauthorised persons
Entrance to be fully secured each evening
Only authorised personnel allowed in the building
Visitors to be accompanied at all times.
Responsible person to check building on a regular basis
Passageways to be kept clear at all times.
Fire exits to be kept clear at all times..

Risk Assessment With Controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 62	Storage of Materials

Risk Associated

Risk of injury from falling materials due to:
-materials improperly stacked and falling from stack causing injury.
-shelving collapsing due to overloading.
Risk of shelves overturning due to persons climbing shelves to reach materials.
Risk of injury from handling and storage of sharp objects.
Risk of muscular strain due to handling of materials.
Risk of fire from storage or combustible materials.
Risk of damage to materials due to improper storage and stacking.
Risk of slips, trips and collisions due to storage and materials in access walkways.
Risk of damage to shelving from forklift truck.

Risk Assessment Before Controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

Storage racks are designed and constructed in accordance with manufacturers recommendations.
Racks not designed for heavy materials shall be marked with appropriate warning signs.
Heavy articles are stacked as close to ground level as possible.
Materials of uniform size are stacked in a key pattern (i.e. brick wall pattern) so that no tier is independent of another.
All racks are securely fixed to walls or bolted to the ground to prevent overturning.
Gangways and passageways are kept free of all trip hazards Materials are never stacked more than one tier high on top shelves.
Pallet goods and heavy articles to be stored on heavy-duty racks designed for heavy loads.
Heavier items are never stacked on lighter containers or boxes.
All racks and bins are inspected regularly for damage and repaired immediately.
All stores areas are no smoking areas

Risk Assessment With Controls

Severity	Likelihood	S x L	Risk
3	1	3	L

Hazard No: 63	Forktruck.
Risk Associated	Contact with overhead services Contact with pedestrians, other plant, fixed object swhen operating /moving Overturning due to overloading Mechanical failure - fluid ressure, electrical hazards from power transmission Slips/falls when climbing in or out of cab Noise and vibration
Risk Rating before controls	**Severity** 3 / **Likelihood** 3 / **S x L** 9 / **Risk** H
Control Measures	Observe Site Traffic Regulations Passengers must not be carried inside or outside the machine. Appropriate PPE to be worn Personnel to ensure the area around the lift is sufficiently secured to prevent falling objects/mobile plant causing njury/damage Ensure all lifting equipment is certified and in good condition –GA1 / GA2 Ensure all personnel as suitably trained Ensure no overhead services or obstructions Assess current weather conditions – high winds, poor visibility, heavy rain. Do not stand under load being lifted
Risk Rating with controls	**Severity** 3 / **Likelihood** 2 / **S x L** 6 / **Risk** M

Hazard No: 64	Fabrication of Pipework / Steelwork
Risk Associated	Serious personal injury – Cuts, Burns, Eye Injury, Electrocution Fire Damage to Pipework and Equipment
Risk Rating before controls	**Severity** 3 / **Likelihood** 3 / **S x L** 9 / **Risk** H
Control Measures	• Appropriate Eye & Ear Protection to be worn when using grinders, drills, cutting tools • Protect All Leads from Sharp and Hot Objects. • Ensure all raised pipework is well supported on pipe stands or chogs and wedges • Appropriate PPE to be used by Welders – Shields, • Project others from Arc Flash – use welding screens • Ensure plant is in safe working order before use – Guards in place, safety switches works, etc • Ensure safe access & egress, • good house keeping • keep walkways clear • Ensure Gas Bottles are stored upright and secured at all times • Ensure proper Manual Handling Procedure is adhered to.
Risk Rating with controls	**Severity** 3 / **Likelihood** 1 / **S x L** 3 / **Risk** L

Hazard No: 65	Pipe Bender.
Risk Associated	Electric Shock Cuts Grazes Eye Injuries Entanglement
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 2 | 3 | 6 | M
Control Measures	Operate in accordance with Manufacturer's Instructions WEAR APPROPRIATE PPE - Safety Glasses, Footwear Do Not wear loose clothing or Gloves while operating this machine CAUTION - EYE PROTECTION Eye protection must be worn while operating or working near equipment. CAUTION - PINCH POINTS Keep hands, loose clothing, and long hair away from moving parts. Injury can occur. Caution Releasing the hand crank while the tube is under load may cause the hand crank to spin, possibly leading to injury. Stay alert, watch what you are doing and use common sense when operating. Do not use a tool while you are tired or under the influence of drugs, alcohol, or medication. Ensure equipment is in good condition, regularly inspected and maintained – Leads and Guards Keep hands away from rotating pipe and fittings. Personnel to be suitably trained for their relevant tasks..
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 2 | 1 | 2 | L

Hazard No: 66	Threading Machine.

Risk Associated

Entanglement.

Electrical shock.

Machine tipping, causing striking or crushing injuries.

Risk of injury

Risk Rating before controls

Severity	Likelihood	S x L	Risk
2	3	6	M

Control Measures

* Ensure Guard is Secure and in Position Prior to Use.
* Appropriate Serviced Fire Extinguisher to be at hand.
* Personnel to be Fire Extinguisher trained
* Equipment to be PAT Tested as necessary
* Personnel to be suitably trained for their relevant tasks.
* Operate as per Manufacturer's Instructions
* Keep work area clean and well lit.
* Cordon off area as necessary.
* Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. .
* Power tool plugs must match the power outlet.
* Wear Appropriate PPE – Glasses, Footwear
* Do Not wear loose clothing or Gloves
* Always use a foot switch
* Do not block foot switch (lock in ON position).
* Do not expose to rain or wet conditions.
* Stay alert, watch what you are doing and use common sense when operating a power tool.
* Do not use a power tool while you are tired or under the influence of drugs, alcohol, or medication.
* Ensure the switch is in the OFF position when not in use and before connecting to power source
* Remove any adjusting key or wrench before turning the power tool ON.
* Do not overreach. Keep proper footing and balance at all times.
* Ensure equipment is in good condition, regularly inspected and maintained – Leads and Guards
* Keep handles and grasping surfaces dry, clean and free from oil and grease.
* Never reach into the machine front chuck or rear centering head.
* Secure machine to bench or stand. Support long heavy pipe with pipe supports to prevent slipping.
* While operating the machine, stand on the side where the operator controls are located.
* Keep hands away from rotating pipe and fittings.
* Stop the machine before wiping pipe threads or screwing on fittings. Allow the machine to come to a complete stop before touching the pipe.

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 67

Iron Worker.

Ironworker machines are designed to punch, shear and notch mild steel plate, barstock and angle.

DO NOT USE THIS EQUIPMENT FOR ANY PURPOSE NOT DESCRIBED IN THE MANUAL.

Risk Associated

- Electrical Hazard – Electrical Shock/Electrocution
- Noise and vibration – Hearing & White Finger
- Shear/Crush Hazard
- Fluid Injection Hazard
  Hydraulic hoses and cylinders are under pressure.
  Pressurized fluid can pierce skin and cause severe injury
- Heat Hazard - Burns

Risk Rating before controls

Severity	Likelihood	S x L	Risk
2	3	6	M

Control Measures

- Moving parts can cut and crush.
  Keep hands clear while operating.
- Ensure guards in place at all times
  Do Not Operate With Guard Removed
- Wear Appropriate PPE
  Eye & Ear Protection, Shoes and Gloves
- Gloves worn when in contact with metal-working fluids. Hands washed after use.
- No Loose clothing to be worn by operatives.
- Caution – Hot Surfaces - PPE
- Ensure Emergency stop button is working
- Ensure worn or damaged parts are replaced.
- Blade guides adjusted for size of work piece.
- Only trained personnel allowed to use.
- Work pieces securely held in vices and supported on rest.
- Ensure Machine is in good work order and has planned maintenance programme.
- Operate in accordance with Manufacturers Instructions.
- ONLY qualified, authorized, maintenance, service or Certified Electricians should gain access to electrical panel.
- Do not operate this equipment from any power source that does not match the voltage rating stamped on the equipment.
- Lockout Power before carrying out any repairs

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 68	**Use of Blasting Equipment / Blasting Operations.** DO NOT USE THIS EQUIPMENT FOR ANY PURPOSE NOT DESCRIBED IN THE MANUAL.

Risk Associated

- Flying dust and materials causing skin abrasions and eye injury.
- Hose Failures - Minor/serious injury as a result of being struck by air hose
- Handling and storage of hazardous substances
- Manual Handling
- Dust - Damage to respiratory system and lungs as a result of inhalation of dust
- Electrical Hazard – Electrical Shock/Electrocution
- Noise – Hearing Damage
- Hand Arm Vibration – White Finger
- Compressed air - Minor/serious injury as a result of exposure to compressed air.

Risk Rating before controls

Severity	Likelihood	S x L	Risk
3	3	9	H

Control Measures

- Appropriate PPE will be worn at all times – Blasting Helmet, Overalls, Gloves, safety boots, hearing protection
- MSDS at hand
- Ensure Emergency stop button is working
- Ensure worn or damaged parts are replaced.
- Non silica based sand to be used for all sandblasting ops.
- Blasting operator will wear hood with supplied air
- Charcoal filter to ensure purity of air supply to blaster will be fitted on air line
- Dead man's handle will be fitted to blasting hose nozzle
- Area fully cordoned off with signage, access to area will be strictly controlled
- Suitable eye & face protection to be worn.
- Workwear and gloves to be worn
- Blasting hoses will be checked for rips/ruptures before use,
- Experienced operators only to be used for blasting
- Hose whip arrestors to be on any connecting hoses
- Equipment to have been inspected and fit for use
- Equipment to be used in accordance with manufacturer's instructions

Ref: Painting & Coating Procedure

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 69	**Use of Painting Equipment / Painting Operations.** DO NOT USE THIS EQUIPMENT FOR ANY PURPOSE NOT DESCRIBED IN THE MANUAL.

Risk Associated

- •
- Electrical Hazard – Electrical Shock/Electrocution
- Hand Arm Vibration – White Finger
- Fire,
- Skin, eye irritation/adverse effect

Risk Rating before controls

Risk of injection, laceration
Exposure to Chemicals: Dermatitis, occupational asthma, eye injuries etc
Dust / Paint Fumes - Health Hazard, respiratory irritation,

Severity	Likelihood	S x L	Risk
2	3	6	M

Control Measures

- Coatings to be applied in well ventilated areas
- MSDS to be consulted before use.
  - Follow procedures recommened in MSDS
- PPE to be worn as per MSDS information
  - Use of half masks with combination filters
  - Ensure goggles / glasses are worn to protect eyes
  - Hand protection must be worn during application

- Avoid contact with skin
- Materials to be stored in accordance with data sheets in dry conditions.
- All containers sealed
- Depressurise spray pump before maintenance cleaning or blockage in spray tip
- Keep fire fighting equipment on stand by
- Keep eye wash first aid on stand by
- Do not aim spray gun at self or anyone
- Ensure safety catch on spray gun is in good working order
- In the case of paint injection get medical attention immediately and show the Safety Data Sheets - Do not delay and insist on medical treatment immediately
- Do not wash off paint with thinners
- Report out breaks of dermatitis to management
- Observe good hygiene practices

Risk Rating with controls

Severity	Likelihood	S x L	Risk
2	1	2	L

Hazard No: 70	**Welding Fumes**.
Risk Associated	• Pneumonia • Occupational Asthma • Cancer • Metal fume fever • Irritation of throat and lungs • Temporary reduced lung function
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | HIGH
Control Measures	• Provide good standard of general ventilation. • Wear RPE equipment en12941 TH2prsl minimum standard . • Keep equipment in effective and efficient order if equipment faulty repair straight away. • Minimise work in enclosed spaces. • Plan the work if possible that welder is not breathing in fume cloud. • Avoid crouching where possible welder to try and remain seated to reduce fumes around face. • If practical try and manipulate work so the welder can weld in a position where the fumes rise away from there face. • Make sure if fabrication is moved make sure lifted and secured properly. • Flash screens to be in place while welding operations being carried out. • Air monitoring needs to be carried out to determine air quality levels and identification of best method of extraction needed.
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M

Hazard No: 71	**Asbestos**.
Risk Associated	When materials that contain asbestos are disturbed or damaged, fibres are released into the air. When these fibres are inhaled they can cause serious diseases. These diseases will not affect you immediately; they often take a long time to develop, but once diagnosed, it is often too late to do anything. This is why it is important that you protect yourself now. • Death & serious Illness from exposure • Lunch Cancer and Mesothelioma
Risk Rating before controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 3 | 9 | HIGH
Control Measures	• If not sure Asbestos is present – Assume the worst and inform Supervisor. • Get material sampled by a competent third party asbestos specialist • Work with / Removal of Asbestos by specialised contractor/trained personnel only – responsible for RAMS for removal and informing HAS per Regulations (14 days in advance) • Check Asbestos Register before commencing works • Ensure Asbestos roof is maintained in good order .
Risk Rating with controls	**Severity** | **Likelihood** | **S x L** | **Risk** 3 | 2 | 6 | M