STATEWIDE QLD roofing

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Safe Work Procedures

Roofing and Wall Cladding

PLAYONE PTY LTD A.B.N: 80 169 475 912 A.C.N: 120 463 649

PO Box 7374 Redland Bay, Qld, 4165 **Ph:** 1300 784 231 **Fax:** 1300 784 235

Trading As: Statewide Roofing Qld

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SAFE WORK PROCEDURES
WORKING ON ROOFS

SPECIAL INSTRUCTIONS:

1. **These procedures apply where a person may fall more than 2.0 m. (NT, Qld, SA, Vic, WA); 1.8 m. (ACT, NSW); or 2.4m. (Tas. - Commercial construction) or, any height (Tas. - Domestic construction).**
2. **REFER TO SPECIFIC SAFE WORK PROCEDURES OR WORKPLACE PRACTICES MANUAL FOR FURTHER INFORMATION ON TOPICS.**

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. General precautions	Falling objects Electrical hazards Slips and falls	Provide edge protection to prevent objects falling from working surfaces. Use barricades to prevent access into area where objects may fall. Ensure that electric wires are de-energised or insulated with matting and identified with "tiger tails" before work commences. Footwear should have flexible soles, with "non-slip" sole pattern. Extreme care is required when working on steep, wet or mossy roofs.	Wear **head protection** on sites where falling objects may occur. Keep safe distance from electric catenary wires at all times. Ensure that good footing can be maintained at all times.
2. Use of ladders	Falls	Single or extension ladders are to be used for access only, except where the work to be carried out is such that the material or equipment used does not restrict movement or cause loss of balance, the trunk of the body remains centred on the ladder, and any equipment used can be used with one hand.	Industrial ladders only to be used. Always have 3 points of contact. Must be on firm, stable surface and be secured against movement.
3. Use of scissor lifts	Overloading Accidental movement Overturning Persons falling	Ensure that total load on platform (including personnel tools and equipment, and materials) does not exceed the safe working load of the unit. Check operation of brakes, stops, outriggers, etc to ensure that unit cannot move when platform is extended. Platform should be lowered before moving unit even for short distances. Persons must not lean out over rails of platform when working at heights. Park scissor lift as close as possible to building (not more than 100mm from roof being accessed) when preparing to step from machine to roof. Raise platform until floor of platform is level with roof. If fitted, depress "Dead man" button to prevent movement of machine. Place sign on bottom control panel to prevent unauthorised movement or operation of machine while in use for roof access.	Never exceed the safe working load of the scissor lift. Do not use if brakes or stops do not prevent all movement of unit. Do not travel with platform raised. Keep body inside platform. Keep edge of platform as near as possible to roof being accessed. Avoid step up or step down. Place "Do Not Use" tag on controls to prevent unauthorised movement of machine.
4. Use of elevating work platforms	Overloading of platform Persons falling	Ensure that total load in bucket of EWP (including personnel tools and equipment, and materials) does not exceed the safe working load of the unit. Persons in EWP bucket must wear appropriate safety harness which will prevent the falling to ground or on to any part of the EWP or truck. Raise platform until floor of platform is level with roof. If fitted, depress "Dead man" button to prevent movement of machine. Place sign on bottom control panel to prevent unauthorised movement or operation of machine while in use for roof access.	Never exceed the safe working load of the EWP. **Parachute type harness** to be worn - belt type **must not** be used. Position so that gate faces roof. Place "Do Not Use" tag on controls to prevent unauthorised movement of machine.

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SAFE WORK PROCEDURES
WORKING ON ROOFS

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
5. Edge Protection	Persons falling Falling objects	Edge protection comprising a guardrail and midrail designed to withstand any force which may reasonably be expected to fall against it must be erected around the perimeter of the work to prevent persons falling. Edge protection must conform to requirements stipulated by the Authority. Hoardings or catch platforms with perimeter screening must be used where objects may fall onto people in adjoining areas (eg, street, residence, etc).	Guardrail to be at least 900mm high with mid rail and toe board. Edge protection systems must be erected by a competent person and used in accordance with the manufacturer's instructions.
6. Steep roofs	Slips and falls	Place ladder on roof to allow persons to climb steep roof safely. Secure ladder on roof before attempting to climb roof on it. Consider use of fall arrest systems where work other than short duration.	Securely attach ladder to roof. Ensure adequate foothold. Provide edge protection.
7. Brittle and fragile roofs	Falls	Permanent walkways should be installed on brittle or fragile roof areas that are accessed or traversed regularly. Provide adequately secured temporary walkways or other means of preventing persons falling through while traversing or working on the roof if permanent walkways are not practicable.	Reliance on roof purlins as safe footing is not recommended. Spread load evenly over roof area. Avoid point loads on roof – do not place heavy items on fragile roof.

PRECAUTIONS: The following precautions are to be observed, and suitable safety and warning signs as indicated displayed in areas where these procedures are carried out.	 

SAFE WORK PROCEDURES
ADHESIVE SPRAYING

SPECIAL INSTRUCTIONS:

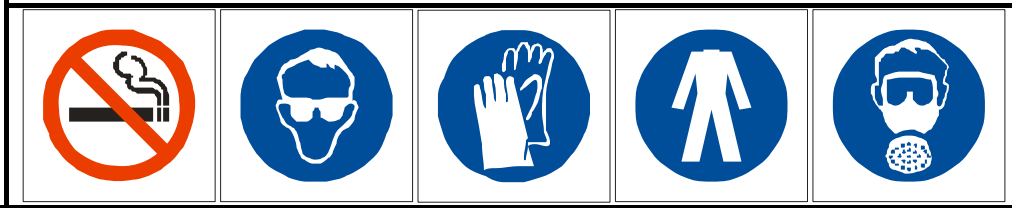
1. Persons spraying adhesives must be notified of any hazards associated with the substances being used, and the appropriate health and safety measures for its use.

2. Manufacturer's instructions for the use of the product must be followed in the use of the adhesives.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. General precautions	Atmospheric contaminants	Spraying of adhesives should only be carried out in a well-ventilated area which will not allow vapours, etc, to contaminate other areas. Ensure that extraction system does not become clogged with adhesive. Use disposable filters to prevent build-up of adhesive in duct system.	Provide spray booth or extraction system to remove contaminants. Clean or replace filter media regularly to allow good airflow.
	Slips and falls	Floor area in adhesive spraying areas should be kept clean of spills and overspray which could cause persons to slip and fall.	Provide non-slip floor surface. Keep work areas clean.
	Fire and explosion	Eliminate all ignition sources (including static electricity) in areas where solvent-based adhesives are stored, handled and used.	**No smoking or ignition sources**.
2. Provision of information	Exposure to chemicals	Copy of current MSDS must be readily available to any person who may be exposed to a hazardous substance or product used in a workplace.	MSDS must identify all health and safety measures to be followed.
3. Use of solvent-based adhesives	Exposure to chemicals	Spraying of solvent-based adhesives must only be carried out in a properly constructed spray booth fitted with an approved filtration system. Persons exposed to solvent during spraying must be provided with and correctly use all PPE as specified on the MSDS.	Wear **eye, hand, & body prot'n**. Wear **gas filter respirator with P1 particulate pre-filter**.
	Fire and explosion	Eliminate all ignition sources (including static electricity) in area.	
4. Use of water-based adhesives	Exposure to chemicals	Provide extraction system to remove fumes from workplace during spraying. Persons spraying water-based adhesives should wear PPE as specified on the MSDS for the product.	Wear **eye and hand protection**. Wear **P1 particulate face mask.**
5. Storage, spills and disposal	Environmental risk	Store adhesives and solvents in a cool dry area away from ignition sources. Discard any rags or materials used for clean up, etc, as flammable waste. Spills of solvents, etc, must not be allowed to enter drains or watercourses. Keep all persons clear of spill or leak area until declared safe to re-enter.	Always store in original packaging All packages to be clearly labelled Clean up any spills immediately.

PRECAUTIONS:
The following precautions are to be observed in areas where these procedures are carried out.

Use of solvent-based adhesives



Use of water-based adhesives

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SAFE WORK PROCEDURES
ASBESTOS & ASBESTOS CONTAINING MATERIALS

SPECIAL INSTRUCTIONS:

1. Work involving free or friable asbestos **must only be carried out** by approved specialists who are the holders of the appropriate licence to carry out this type of work.
"friable" – when dry, asbestos can be crumbled, pulverised or reduced to powder by hand pressure, or may become so as a result of a work process.
"non-friable" – when dry, cannot be crumbled, pulverised or reduced to powder by hand pressure.

2. Work involving asbestos containing materials (ACMs) **must only be carried out** by a "competent person", who possesses adequate qualifications, such as suitable training and sufficient knowledge, experience or skills, to perform the task safely.

3. All work involving asbestos or ACMs must be carried out in conformity with the *Code of Practice for the Safe Removal of Asbestos.*

4. Any work involving asbestos or ACMs must be carried out in a manner which will prevent the exposure of persons to asbestos fibres.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Control of asbestos	1. Friable, unstable, and presents a risk to health from exposure. 2. Friable, but stable, and accessible. 3. Not friable, and in good, stable condition. 4. Other ACMs.	Arrange removal by an approved asbestos removalist as soon as practicable. Restrict all unauthorised or unnecessary entry into area. Consider removal. If not practicable, sealing or encapsulation should be used as a short-term control measure (not allowed in some States). Minimise disturbance, seal or encapsulate (not allowed in all States). Attach label (where possible), and inspect regularly to ensure that the ACM is not deteriorating.	**Authorised personnel only**. Sealing or encapsulation not allowed in ACT, Qld or SA. Sealing or encapsulation not allowed in ACT, Qld or SA. Use standard international asbestos label to warn of presence of asbestos or ACMs.
2. Cleaning of surfaces	Inhalation of asbestos fibres	Inspect surfaces to be cleaned to ensure that the ACMs are not friable, and are in a good, stable condition. The following activities **must not be carried out** – • use of a power tool to clean an ACM • use of a high pressure water cleaner to clean an ACM, or to clean up debris from an ACM • use of compressed air to clean an ACM, or a surface where debris from an ACM is present.	Use folded (**not** wadded) wet cloth to wipe surfaces – cloth to be disposed of as asbestos waste after use. Wear **disposable gloves**. Use industrial vacuum cleaner (**not** domestic type) specifically designed for use with hazardous particulates.
3. Disturbance of ACMs	Inhalation of asbestos fibres	Avoid unnecessary removal or disturbance of ACMs. Use of power tools to cut ACMs is prohibited in all States and Territories. Drilling of ACMs is prohibited in ACT. Use heavy-duty plastic sheet to ensure that any particles are captured. Where possible, wet ACM to reduce generation of dust. Prevent unauthorised access to work area. Prevent spread of dust to other areas. Do not allow re-entry until area is decontaminated.	Determine whether work can be carried out without disturbing the ACM. Wear **P1 or P2 particulate dust mask or respirator.** Wear **disposable coveralls** to prevent contamination of clothing. Wear **disposable gloves**.

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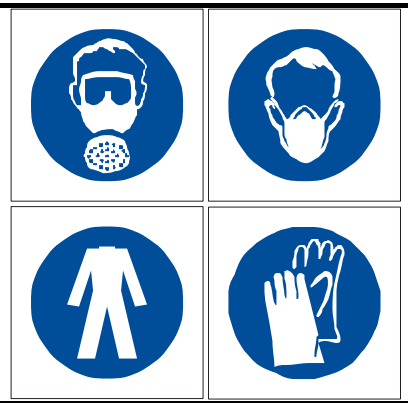
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Handling and disposal of asbestos waste	Inhalation of asbestos fibres	Avoid contact with or breathing asbestos-containing dust. Place asbestos waste into suitable heavy-duty sealable plastic bags or wrapping, ensuring that plastic will not be damaged by sharp points and edges of waste. Fully seal all openings and seams with heavy-duty plastic tape. Label bags and packages and dispose of only at an approved landfill site. Do not dispose of asbestos waste in domestic, commercial or industrial waste bins.	Wear **P1 or P2 particulate dust mask or respirator.** Wear **disposable coveralls** and **gloves**. Use standard international asbestos label to warn of presence of asbestos or ACMs.

PRECAUTIONS:

1. The following precautions should be observed when handling asbestos or asbestos containing materials.

2. Suitable safety and warning signs as indicated below should be displayed in areas where work involving asbestos or ACMs is carried out.

Control of asbestos	Cleaning of surfaces	Disturbance of ACMs	Handling and disposal of asbestos waste
			

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SAFE WORK PROCEDURES
CHEMICALS (HAZARDOUS SUBSTANCES)

SPECIAL INSTRUCTIONS:

1. Persons handling chemicals must be instructed on the hazards of the substance, and the means of protecting themselves, others and the environment from exposure to the substance.

2. A chemical must not be used in a workplace unless a current Material Safety Data Sheet is available.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. MSDS Register	Exposure to hazardous substances	Obtain a current Material Safety Data Sheet (MSDS) for each substance to be used in a workplace before the substance is first used. The MSDS must provide detailed information about the name of the substance (including ingredients in mixtures, health hazard information, precautions for use and safe handling of the substance). Provide a register which contains a MSDS for each substance together with a risk assessment in each area where a substance is used.	Ensure that the MSDS is the correct one for the substance actually being used in the workplace, and is current. Replace MSDSs every 5 years. Registers must be clearly labelled and be readily available.
2. Storage	Fire Spills and leaks Hazards to the environment	Chemical storage areas are to be well ventilated, and provided with flame-proof lighting where significant quantities of flammable materials are stored. Provide bunds or other methods of preventing the spread of spilt or leaked liquids. Provide adequate means to contain and clean up spills and leaks in each area where liquids are stored. Neutralising agents should be readily available for substances such as acids. Dispose of spillage only as directed on the MSDS. Store dangerous goods in compliance with local dangerous goods regulations, and provide appropriate placards where quantities stored exceed minimum quantities requiring placarding to be provided.	**No smoking or ignition sources** in or near storage areas. **Personal protective equipment** as specified in the MSDS for a substance must be readily available in case of a spill or leak. Follow local environmental protection requirements. **Prevent unauthorised entry** into areas where dangerous goods are stored or handled.
3. Labelling	Exposure to hazardous substances	Containers of hazardous substances should be clearly labelled with the trade name of the substance, the chemical name(s) of the ingredient(s), possible harmful effects, safe handling precautions, and the appropriate dangerous goods class label or poisons label. Containers used to transfer substances during a work process should be identified with the name of the substance while containing the substance. Tanks and Intermediate Bulk Containers which are identified with a dangerous goods placard do not require to be labelled unless the substance is to be used in the workplace.	Ensure that labels are clearly visible on all containers. Ensure that correct label is fixed to container. (Note – a label should remain on the container until it is cleaned of all harmful residue).

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Handling	Exposure to hazardous substances Fire and explosion	Instruct all persons handling chemicals on the hazards of the substance, and the means of protecting themselves from the substance. Provide suitable respiratory, eye and body protection to all persons who are likely be exposed to a substance if adequate ventilation cannot be maintained, or if the substance poses an immediate risk to health. Eliminate and prevent all ignition sources from areas where hazardous substances are handled. Use earthing straps to prevent build up of static electricity.	Provide Safe operating instructions. **Respirator, eye protection, body protection, liquid-proof gloves** as required by MSDS. No smoking or ignition sources in areas where hazardous substances are handled.
5. Disposal	Hazards to the environment	If applicable, neutralise spilt material with suitable neutralising agent. Place all waste and used substances in suitable containers labelled with the name and class of the substance. Dispose of waste substance at an approved chemical disposal facility. Do not allow substances to enter drains or watercourses.	Provide suitable containers for the disposal of waste substances. Do not dispose of in landfill unless authorised to do so by the relevant environmental authority.
6. Emergency procedures	Exposure to hazardous substances or by-products	Procedures to remove persons who may be affected to a safe place must be provided where a spill or leak could result in a risk to health and safety. Train all persons in the implementation of emergency procedures. Clearly display emergency services contacts in areas where an emergency could arise. Emergency shower and eye-wash facilities must be provided in areas where an exposure is likely to occur. Suitable first aid facilities should be readily available in case of exposure.	Provide alternative emergency assembly areas where the areas may be affected by wind-borne substance

PRECAUTIONS:

1. The following precautions should be observed when using chemicals or hazardous substances.

2. Where applicable, suitable safety and warning signs as indicated below should be displayed in areas where chemicals or hazardous substances are used.

Fire and explosion	Unauthorised entry	Exposure to hazardous substances (Refer to MSDS)
		

SAFE WORK PROCEDURES
COLD SAWS

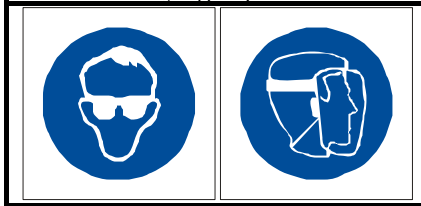
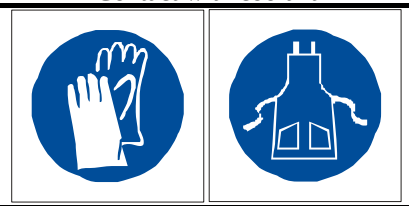
SPECIAL INSTRUCTIONS:

1. Cold saws are to be used for metal cutting only.
2. Only those blades which are designed for metal cutting at low speeds are to be used in cold saws.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Slips, trips and falls Flying objects Damage to saw blade Job moving or slipping	Ensure area around saw is free of offcuts, debris and spilt coolant. Inspect blade for damage (e.g., worn, broken or missing teeth). Check coolant level, top up if necessary. Ensure that mating surfaces of vice or work clamps are clean of swarf.	Keep work area clear. Replace blade if faulty. Do not “dry cut” metal. Clean mating surfaces.
2. Preparation for cutting	Setting stops for production cutting. Job moving	With saw turned off, lower blade to touch stock, and measure from blade to end with metal rule or sample piece. Clamp work to be cut securely in vice or with work clamps.	Ensure that saw cannot be used. Ensure that stops are securely set. Ensure that job is securely held.
3. Operation	Flying objects Skin exposure to chemicals Falling objects	Turn saw on, and pull blade down to slowly contact piece to be cut. Using steady (but not excessive) pressure, allow blade to cut through metal at its own rate. If blade “chatters”, stop machine and check blade for damage, and that stock piece is firmly held in vice or work clamps. Avoid excessive contact with coolant. Secure stock and cut pieces against falling from cutting bench.	Do not “bump” blade on work. **Eye protection** must be worn. Apply steady (not excessive) pressure on blade when cutting. Wear **gloves**, **apron** if necessary. Wear **Type 1 footwear**.

PRECAUTIONS:

1. The following precautions should be observed when using cold saws.
2. Suitable safety signs as indicated below should be displayed in areas where cold saws are used.

Flying objects	Contact with coolant	Falling objects	
			

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SAFE WORK PROCEDURES
CONFINED SPACES

SPECIAL INSTRUCTIONS:

1. A register should be kept of all confined spaces, which must be clearly identified.
2. A risk assessment must be carried out for each confined space (or type of confined space where a number of similar confined spaces are present).
3. Entry into a confined space should be restricted to persons who have been issued with a current permit to enter the confined space.
4. An observer who is familiar with means of rescue of a person from a confined space is to keep the person inside the confined space in view at all times.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Identification		Identify all confined spaces by a sign at each point of entry with the legend "DANGER Confined Space Entry by Permit Only". Any identification code or number allocated to the confined space should be clearly displayed at the entry point(s) and at any valves or controls related to the confined space.	**Prevent unauthorised entry** into the confined space during maintenance operations by barricading and posting suitable signs at entry points.
2. Entry into confined spaces	Slips, trips and falls Removal of disabled person	Where entry into the space is by ladder, a means of preventing the person from falling must be provided. Where an injured or unconscious person may have to be removed from a confined space, a safety line attached to a parachute type harness must be attached to the person at all times.	**Safety harness** must be worn and **fall arrestor** system used. Fall arrestor line is not suitable for rescue purposes.
3. Monitoring of confined spaces	Unsafe atmosphere	Constantly monitor the atmosphere inside the confined space for flammable or explosive gases, toxic gases, or unsafe oxygen levels.	**Supplied-air respirator** or **breathing apparatus** to be worn.
4. Working in confined spaces	Heat Noise Striking against objects Flying particles, dust Toxic or harmful contaminants Electric shock	Provide flow of fresh air from outside of the confined space to assist in reducing the temperature inside the confined space. Work processes in a confined space may produce noise levels much higher than the same process carried out in the open. Restricted work space increases risk of hitting head on parts, structure, etc. Close proximity of walls, etc, increases risk of foreign body in eyes. Confined space will result in higher concentrations of dust or air-borne residue from work processes. Process vessels and storage vats, etc, may contain harmful residues even after purging, which may result in harmful contact during entry. Physical damage to power leads will result in surfaces becoming "live". Risk of electric shock while welding in damp or wet conditions.	Continue to carry out monitoring of atmosphere. Wear **hearing protection**. **Head protection** should be worn. **Eye protection** must be worn. Wear **dust mask** or **respirator.** Wear **body protection**, **gloves** and **water-resistant footwear**. **Safety switch or RCD** to be used. Use **rubber mats** while welding.
5. Return to service		Ensure that all tools and materials have been removed from the confined space before signing off on the entry permit. Remove and sign all danger tags and lockouts before signing off.	

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
6. Signing off	Undetected hazards	Report any new or previously undetected hazards encountered during the work in the confined space on the entry permit before returning the permit to the issuing officer Report any suggested changes or improvements to work processes for consideration and implementation before the next or similar entry.	

PRECAUTIONS:

1. The following precautions should be observed when working in confined spaces.

2. Where applicable, suitable safety and warning signs as indicated below should be displayed in areas where persons are required to enter a confined space.

Unauthorised entry	Slips, trips and falls	Unsafe atmosphere	Noise	Striking against objects	Flying particles	Dust	Toxic or harmful contaminants
							

SAFE WORK PROCEDURES
ELEVATING WORK PLATFORM

SPECIAL INSTRUCTIONS:

1. Persons should not operate an elevating work platform unless they have been instructed in the precautions to be observed and the safe use of the machine.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Loss of power Loss of control Risk of falls Accidental movement	Ensure that battery is fully charged before using the EWP for any working at heights. Check liquid levels (fuel, oil, coolant, hydraulic oil, etc) before operation. Check all controls for correct operation before commencing use. Check all movements before commencing – should be smooth and steady. Check operation of brakes, stops, outriggers, etc to ensure that unit cannot move when boom is extended. Ensure that guard fence and gate/s is secure and closes securely.	Do not use if battery power is low. Recharge battery before use. Top up liquids if levels are low. Do not use faulty equipment. Do not use if movements "jerky". Do not use if brakes or stops do not prevent all movement of unit. Check operation of gate latch.
2. Travel	Instability	Reduce speed when turning corners, on rough surfaces or where visibility is restricted (eg, blind corners, etc). Boom should be lowered before moving unit even for short distances. Keep body fully within confines of cage when traversing.	Always travel at safe speed. Corner at slow speed only. Do not travel with boom raised. Ensure that gates on cage closed.
3. Security of worksite	Collision Falling objects	Use barricades, traffic cones and signs, etc, to prevent collision of other plant or vehicles working in vicinity with EWP. Prevent access of persons into vicinity of EWP when boom is raised.	Use signs barricades, cones, etc, to protect work area. Prevent unauthorised entry.
4. Working at heights	Instability Electric shock	Ensure that unit is on level surface (or is levelled with outriggers if working on uneven surfaces) before raising boom. Ensure that gates on platform guard rails are closed and locked in place. Do not reach out beyond confines of cage when working at heights. Do not "rock" unit when platform is raised. Keep safe distance from overhead catenary wires and electrical installations, or have services isolated and locked out before starting work in vicinity.	Ensure that unit is parked on a stable, firm surface before raising. Do not open gates when elevated. Wear **safety belt or harness**. Avoid sudden or jerky movement. Identify electrical hazards before commencing work.

PRECAUTIONS:

1. The following precautions are to be observed when operating or working in the vicinity of elevating work platforms.

Prevention of unauthorised entry	Working at heights	Falling objects	
			

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PROCEDURES for FIRE AND OTHER EMERGENCIES

FIRE

If you see a fire in the workplace, **DO NOT PANIC!**

- Raise the alarm – notify others in the workplace. If the fire is large, or appears as if it may get out of control, ring the **FIRE BRIGADE**, giving all details (name and address of fire location, type of fire, persons trapped, etc). **DO NOT HANG UP UNTIL ADVISED TO DO SO BY THE BRIGADE.**

If you hear an alarm sounding, **DO NOT PANIC!**

- Check your surrounding area for any signs of fire. If you do not see a fire or smoke, remain at your workplace for further instructions. If you see a fire, tell others in the workplace, and ensure that the fire brigade has been notified of the fire.
- **ONLY IF IT IS SAFE TO DO SO, AND YOU HAVE BEEN TRAINED IN THE USE OF FIRE FIGHTING EQUIPMENT –** fight the fire from a safe location – always stay between the fire and your escape route.
- When advised to do so, evacuate the premises calmly to the designated Emergency Assembly Area, and **wait until advised** to either re-enter the premises or leave.

BOMB THREAT

(a) If you receive a bomb threat by telephone

DO NOT HANG UP – attract attention of another person, tell them that you have received a bomb threat on your extension, and ask them to notify the police immediately.

Attempt to keep the caller engaged in conversation – ask questions such as –

- Where is the bomb?
- What does it look like?
- When is it going to go off?
- Who put the bomb there?
- What organisation do you belong to?
- What was your name again?

DO NOT HANG UP even if the caller hangs up – the call can still be traced.
Follow all instructions given by staff, such as identifying all bags, parcels, etc, in your work area.
You must NOT leave your work area until you are told to do so.

(b) If you find a suspicious article

Notify staff working in the area, who will attempt to establish ownership of the article. If ownership cannot be established, the police must be notified (giving a full description of the article and its exact location). Follow all instructions given by staff. **You must NOT leave your work area until you are told to do so.**

DO NOT TOUCH OR MOVE THE ARTICLE.

ACCIDENTS OR MEDICAL EMERGENCIES

1. **KNOW THE LOCATION OF THE NEAREST FIRST AID FACILITY**
2. **KNOW THE IDENTITY OF YOUR FIRST AID ATTENDANT**
3. **KNOW HOW TO OBTAIN ASSISTANCE (eg, Ambulance) IN AN EMERGENCY**
4. **KNOW THE BASIC PRINCIPLES OF FIRST AID AND RESUSCITATION.**

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BASIC FIRST AID

D - DANGER	Protect yourself, the patient, and others from danger
R - RESPONSE	Determine whether patient is conscious or unconscious – "Shake and Shout"
A - AIRWAY	Make sure that the patient's airway is clear
B - BREATHING	Check that the patient is breathing – if not, commence expired air resuscitation
C - CIRCULATION	Stop bleeding, and check patient's pulse.

HAZARDOUS SUBSTANCE SPILL OR LEAK

1. Alert other persons in the vicinity of the spill or leak – evacuate the area if necessary
2. If spill is large or extremely hazardous, contact emergency services
3. Do not place yourself at risk – ensure that you are properly protected before entering the area
4. Eliminate all sources of ignition within the area
5. Prevent spillage from entering drains and watercourses
6. If possible, stop leak or spill (close valves, decant into sound container, etc)
7. Clean up spilled material, place into suitable sealable container for disposal
8. Clean floors, etc, of area where spill occurred to remove residue
9. Label containers of waste material for disposal at an approved chemical waste facility
10. Fully ventilate area to ensure safe atmosphere before allowing re-entry into area.

POWER FAILURE

1. Determine whether the outage is local or due to supply grid failure
2. Determine the probable duration of the outage
3. Determine if any plant or machinery needs to be closed down, and follow shut-down instructions
4. If outage will be extensive, shut down operation and evacuate premises.

EVACUATION OF PREMISES

This procedure will be common to all types of emergencies.

DO NOT PANIC – PANIC HAS KILLED MORE PEOPLE THAN FIRES

1. Follow instructions given for evacuation of premises
2. Use designated evacuation routes to travel to a safe place or designated assembly area
3. Do not carry anything in hands during evacuation, especially if stairs must be traversed (shoulder bags OK)
4. Wait at assembly area until head count is completed, and further instructions given.
5. Do **NOT** re-enter building until all clear given and instructions given to do so.

SELECTION & USE OF FIRE FIGHTING EQUIPMENT

Do not attempt to fight a fire unless you know how to use the fire fighting equipment, and you will not be placing yourself in danger in doing so.

1. Know the location of fire fighting equipment in your work area
2. Know what types of fires the equipment is suitable for and unsuitable for
3. Know how to operate the equipment correctly and effectively
4. Ensure that all fire fighting equipment is ready for use at all times
5. Use the equipment according to instructions
6. Do not place yourself in danger – keep between fire and your escape route
7. Have equipment serviced or recharged after any use.

IF THERE'S ANY DOUBT – PLAY SAFE – GET OUT!

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SAFE WORK PROCEDURES
FALL ARREST SYSTEMS

SPECIAL INSTRUCTIONS:

1. Persons required to use travel restraint or fall arrest systems must be competent in the selection, use and care of all components of the system.

2. All parts of a travel restraint or fall arrest system must be compatible and fit safely together – avoid using components from different manufacturers wherever possible.

3. **Persons using fall arrest systems should not work alone, or, if necessary to work alone, be constantly monitored to ensure that they have not fallen.**

4. **In the event of a fall, it is essential that the person be rescued as soon as possible to minimise suspension trauma resulting from the fall.**

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Standards compliance	Standards	All fall arrest systems used in Australia must comply with joint Australian and New Zealand Standard AS/NZS 1891 Industrial fall-arrest systems and devices.	**Do not use** waist type belts for work where a person may fall.
	Design	Parachute type harnesses only are to be used for fall arrest purposes.	
	Use	Lanyard or lifeline should be attached at the top dorsal position. (The D-ring on the side of the harness can be used on steeply sloping roofs).	
2. Travel restraint systems	Anchorages	Recommended design capacity of 22KN should be used, except where a lesser design load provides for a minimum safety factor of 6.	
	Use of harnesses	Safety harnesses and lanyards can be used as travel restriction systems to prevent workers moving from safe to unsafe areas of a roof.	Length of lanyard must be less than minimum distance to edge.
3. Lanyards	Tensile strength	Lanyards must have a minimum tensile strength of 22.2Kn.	
	Fall arrest lanyards	Lanyards with a personal energy absorbing system should only be used where other fall protection methods are impractical.	Ensure that potential free fall is not greater than 2 m.
		Safety of synthetic lanyards can be damaged by contact with edges.	
4. Inertia reel systems	Mounting	Inertia reels should be mounted above head height where possible to limit the free fall distance to that recommended by the manufacturer.	Ensure that mounting point can withstand the load imposed by the reel stopping a falling person.
	Anchorages	Anchorages should be as high as possible; recommended capacity 22KN.	
	Activation delay	Fall arrest systems require a minimum distance (up to 4m) to activate.	
	Inertia reel line breakage	Inertia reel systems can be used to prevent falls when working near an unprotected edge of a roof or structure, but only where such use is approved by the manufacturer and line will not be damaged by contact with edges.	Contact of line with roof edge may hinder operation of inertia reel or cause the reel line to fail.
		Inertia reels can be used as a travel restraint where the maximum length of the reel line does not exceed the minimum distance to the unprotected edge.	Inertia reels may not be fully effective in situations such as stopping a person falling down an inclined surface or pitched roof.
		Inertia reels are not designed for continuous support, and should not be used as working supports by locking the system to prevent movement.	
	Swing down ("pendulum effect")	Swing down can occur when the line is extended diagonally across the roof. The line will move back along the roof edge until it is reaches a position directly in line with the anchorage point, when the reel will begin to operate.	Use anchorage point in line with working position, or provide a mobile anchorage (static line), or provide secondary anchorage point to minimise swing.
	Multiple use of reels	Avoid "crossing" of lines when more than one person is working on roof.	
	Use of lanyards	**Do not use lanyards in conjunction with inertia reels.**	

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Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
5. Static lines	Tensile strength	Recommended design capacity for static lines of 22KN should be used, except where a lesser design load provides for a minimum safety factor of 6.	Static lines should be obtained as a complete system to ensure that all parts are compatible and capable of meeting design loadings.
	Anchorages	If the load-bearing capacity of an anchorage point is impaired, the anchorage must be immediately made inoperable so as to prevent its use.	
	Intermediate supports	Intermediate supports for static lines should not exceed 4.0m spacings unless specifically designed to do so.	
	Installation	Static line systems must be installed by a person holding a Certificate of Competency as a rigger or scaffolder.	
	Inspection and maintenance	Inspect lines, fittings and anchorages before first use and then at regular intervals to detect any faults, corrosion or damage.	Visually inspect static line for faults before each use.
6. Vertical lifelines (droplines)	Use	Use vertical lifelines when working from bosuns' chairs and ladders.	
	Design	Vertical lifelines should have a minimum tensile strength of 22.2KN. Self-retracting lifelines should have a minimum tensile strength of 13.3KN.	
	Anchorages	Mounting point should be as close to vertically above working position as possible, and have a design capacity of at least 22KN.	Ensure no obstructions within activation distance.
7. General precautions	Use of fittings	Fall arrest systems and fittings must only be used in accordance with the manufacturer's instructions.	Approved fittings only are to be used on fall arrest systems.
	Inspection of systems	Visually inspect static lines, harnesses and fittings for faults before each use.	**DO NOT USE** faulty equipment.
		Inspect hooks for correct operation before each use, and ensure that hook is fully closed and has not become entangled in clothing.	Do not use faulty or damaged hooks.
	Use of hooks	**DO NOT connect snaphooks to each other.**	
		Use of automatic or double locking types of hook is recommended to reduce risk of accidental opening of hook due to dynamic rollout during use.	Users must be familiar with the operation of the hook before use.
		Ensure adequate clearance inside hook to prevent jamming in D-ring.	

PRECAUTIONS:

1. Suitable safety signs as indicated below should be displayed in areas where these procedures are carried out.

Use of safety harnesses and fall arrest systems		

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SAFE WORK PROCEDURES
FUEL – STORAGE AND HANDLING

SPECIAL INSTRUCTIONS:

1. Quantities over 1,000 L of Class 3 Flammable Liquids are subject to Dangerous Goods Storage requirements in most States and Territories.

2. C1 Combustible Liquids (e.g., diesel fuel) in excess of 1,000 L stored with any quantity of fire risk Dangerous Goods are subject to Dangerous Goods Storage requirements in some States.

3. Flammable and Combustible Liquids storage and handling requirements apply in all cases (except where fuel is stored in underground tanks).

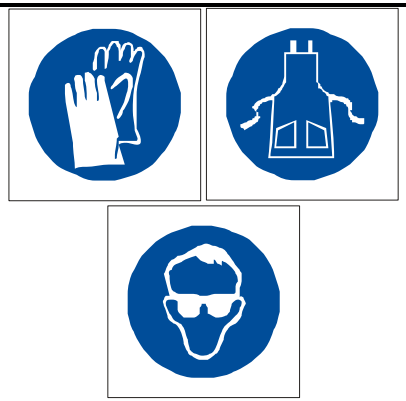
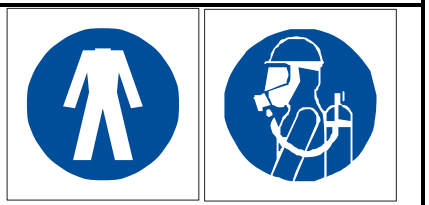
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Storage	Security Fire risk	Fuel should be kept in a cool, well-ventilated place, preferably protected from weather and unauthorised access. All sources of ignition are to be eliminated from fuel storage areas.	**No unauthorised entry**. **No smoking or ignition sources**.
2. Handling	Inhalation of vapours Fire risk Defatting of skin, dermatitis Irritation to eyes	Decanting and mixing of fuel should be carried out in a well-ventilated area. Provide earthing straps to eliminate build up of static electricity. Avoid direct contact with petrol on skin. Avoid splashing of fuel, and avoid getting petrol or fuel in eyes.	 **No smoking or ignition sources**. **PVC gloves**, **apron** to be worn. **Eye protection** should be worn.
3. Transport	Fire risk	Ensure that containers are earthed to prevent static build up during transport. Do not convey fuel in passenger compartment of vehicles. Fuel containers are to be secured from movement or accidental damage. If carried in a secure compartment, adequate means of ventilation is to be provided (e.g., roof ventilator, grille vent, etc).	**Label all containers** clearly with the contents of the container. **No smoking or ignition sources**. Suitable **fire extinguisher** must be carried on vehicle.
4. Use	Fire risk	Refuel equipment and tools in a clear area away from vehicles, etc. Shut down machinery, and allow to cool down before refuelling. Use funnel or pourer to refuel, avoid spills and overfilling. Eliminate all ignition sources from refuelling area.	Suitable **fire extinguisher** to be available close to refuelling area. Avoid contact with skin and eyes. **No smoking or ignition sources**.
5. Spills and leaks	Fire and explosion	Prevent further spill or leak if possible, and only if safe to do so. Eliminate all ignition sources from spill area, evacuate area if necessary. Prevent spill from entering drains and watercourses. If large spill, appropriate personal protective equipment will be required for persons entering area (persons must be specifically trained in procedures to follow in cases of spills of flammable liquids). Soak up spill if possible (Note – material used to soak up spill will also be highly flammable, and must be handled as fuel). Notify emergency services if threat to persons, property or the environment. Do not allow re-entry into area until spill is cleaned up fully and area has been decontaminated.	 **No smoking or ignition sources**. **Body protection** (gas suit), self-contained **breathing apparatus**. **PVC gloves**, **apron**, **respirator** fitted with appropriate gas filter.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
6. Disposal	Fire, environmental risk	Waste fuel or spill residue must be disposed of properly at an approved chemical waste recycling or disposal facility, and not be disposed of in landfill, or allowed to enter drains or watercourses. All waste containers are to be properly labelled with the contents of the container.	

PRECAUTIONS:

1. The following precautions should be observed when fuel is stored or handled.

2. Where applicable, suitable safety and warning signs as indicated below should be displayed in areas where fuel is stored or handled.

Unauthorised entry	Elimination of ignition sources	Handling fuel	Spills and leaks	Additional protection for large spills
				

SAFE WORK PROCEDURES
HAND TOOLS

SPECIAL INSTRUCTIONS:

1. Keep hand tools in good condition and properly sharpened for safe and correct use. (Most accidents with hand tools occur because of poor maintenance or because the tool is blunt, and excessive force is used due to tools not being able to carry out work).

2. Hand tools should never be used for any purpose other than that for which they are designed.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Inspection	Blunt cutting edges	Sharpen cutting edges to optimum profile for work to be carried out. Set saw teeth to allow saw blade to move in cut section without jamming.	Use **eye protection** when using grinders.
	Loose handles	Check fit of handles in or on tools - replace or rectify as necessary. Inspect handles for splits and splinters – replace or rectify.	Wear **leather gloves** when handling sharp objects.
	Worn working faces/edges	Inspect heads of screwdrivers and bits for wear – discard or refurbish worn tools which will damage heads of screws, etc.	
	"Mushroom" heads	Inspect heads of cold chisels for "mushrooming" and cracks – grind back to remove "mushroomed" section.	Do not use tools with deformed heads.
	Deformed parts	Inspect spanners for damage to mouth or signs of spreading. Check operation of adjustable spanners for tightness or misalignment if jaws.	Do not use spanners which do not fit snugly onto nut.
2. Use	Tools slipping Damage to work	Match the tool to the job – do not use a tool which is too small or too large. Do not use excessive force – spanners are designed to apply a maximum amount of torque to a bolt or nut which will not cause damage to it. Do not use a hammer to tighten a bolt or nut unless the spanner has been designed for the task (better to use a torque wrench which will allow the bolt or nut to be tightened to the correct torque, and not over tighten).	
	Flying objects	Use of cutting tools (such as cold chisels) will result in risk of being struck by sharp pieces of metal.	**Eye protection** must be worn.
	Damage & breakage	Do not strike tools (such as screwdrivers, spanners) unless they have been specifically designed for that purpose. Use hammers specifically designed for striking (e.g., engineers hammers, sledge hammers) for use with cold chisels, etc, and for hammering metal. Tools designed for wood working should never be used for working with metals (some "soft" metals excepted).	
3. Care	Rust & corrosion	Tools should be cleaned and dried, and lightly oiled to prevent corrosion. Wipe off all excess oil before placing into storage.	**NOTE – Do not oil striking faces (hammers, chisel heads, etc) or handles.**
	Damage	Store tools in a way that protects them from accidental damage.	

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Sharpening	Flying particles	Use dressed grinding wheel to reface edges of cutting tools. "Blade end" screwdrivers should be refinished to ensure that the head fits properly into the slot of the screws. Wood working tools require finishing on an appropriate oilstone.	**Eye protection** must be worn.
5. Refacing	Flying particles	Striking faces of hammers should be refaced when showing evidence of wear or damage. A sanding belt fitted with a belt designed for metal is the best tool for this purpose. Always ensure that the original profile of the hammer head is maintained. Badly chipped hammer heads should be discarded immediately.	**Eye protection** must be worn.
6. Replacement of handles		Ensure that the handle selected is the correct one for the tool. Where handle is asymmetrical, ensure that it is fitted in the correct way. Ensure that the correct wedges are used, and are driven flush with the head. Remove protruding section of handle from head before using. Check tightness of handle and wedges after a short period of use.	

PRECAUTIONS:

1. The following precautions should be observed when using hand tools.

2. Where applicable, suitable safety and warning signs should be displayed in areas where hand tools are used.

Flying particles	Handling rough or sharp objects	
		

SAFE WORK PROCEDURES
HAZARDOUS SUBSTANCES

SPECIAL INSTRUCTIONS:

1. Persons handling hazardous substances must be instructed on the hazards of the substance, and the means of protecting themselves, others and the environment from exposure to the substance.

2. A hazardous substance must not be used in a workplace unless a current Material Safety Data Sheet is available.

3. A hazardous substance is defined as one which can cause physiological harm to persons, or harm to property or the environment.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. MSDS Register	Exposure to hazardous substances	Obtain a current Material Safety Data Sheet (MSDS) for each substance to be used in a workplace before the substance is first used. The MSDS must provide detailed information about the name of the substance (including ingredients in mixtures, health hazard information, precautions for use and safe handling of the substance). Provide a register which contains a MSDS for each substance together with a risk assessment in each area where a substance is used.	Ensure that the MSDS is the correct one for the substance actually being used in the workplace, and is current. Replace MSDSs every 5 years. Registers must be clearly labelled and be readily available.
2. Storage	Fire Spills and leaks Hazards to the environment	Chemical storage areas are to be well ventilated, and provided with flame-proof lighting where significant quantities of flammable materials are stored. Provide bunds or other methods of preventing the spread of spilt or leaked liquids. Provide adequate means to contain and clean up spills and leaks in each area where liquids are stored. Neutralising agents should be readily available for substances such as acids. Dispose of spillage only as directed on the MSDS. Store dangerous goods in compliance with local dangerous goods regulations, and provide appropriate placards where quantities stored exceed minimum quantities requiring placarding to be provided.	**No smoking or ignition sources** in or near storage areas. **Personal protective equipment** as specified in the MSDS for a substance must be readily available in case of a spill or leak. Follow local environmental protection requirements. **Prevent unauthorised entry** into areas where dangerous goods are stored or handled.
3. Labelling	Exposure to hazardous substances	Containers of hazardous substances should be clearly labelled with the trade name of the substance, the chemical name(s) of the ingredient(s), possible harmful effects, safe handling precautions, and the appropriate dangerous goods class label or poisons label. Containers used to transfer substances during a work process should be identified with the name of the substance while containing the substance. Tanks and Intermediate Bulk Containers which are identified with a dangerous goods placard do not require to be labelled unless the substance is to be used in the workplace.	Ensure that labels are clearly visible on all containers. Ensure that correct label is fixed to container. (Note – a label should remain on the container until it is cleaned of all harmful residue).

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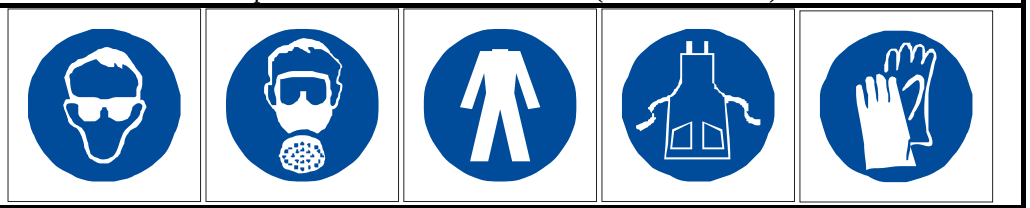
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Handling	Exposure to hazardous substances Fire and explosion	Instruct all persons handling chemicals on the hazards of the substance, and the means of protecting themselves from the substance. Provide suitable respiratory, eye and body protection to all persons who are likely be exposed to a substance if adequate ventilation cannot be maintained, or if the substance poses an immediate risk to health. Eliminate and prevent all ignition sources from areas where hazardous substances are handled. Use earthing straps to prevent build up of static electricity.	Provide Safe operating instructions. **Respirator, eye protection, body protection, liquid-proof gloves** as required by MSDS. No smoking or ignition sources in areas where hazardous substances are handled.
5. Disposal	Hazards to the environment	If applicable, neutralise spilt material with suitable neutralising agent. Place all waste and used substances in suitable containers labelled with the name and class of the substance. Dispose of waste substance at an approved chemical disposal facility. Do not allow substances to enter drains or watercourses.	Provide suitable containers for the disposal of waste substances. Do not dispose of in landfill unless authorised to do so by the relevant environmental authority.
6. Emergency procedures	Exposure to hazardous substances or by-products	Procedures to remove persons who may be affected to a safe place must be provided where a spill or leak could result in a risk to health and safety. Train all persons in the implementation of emergency procedures. Clearly display emergency services contacts in areas where an emergency could arise. Emergency shower and eye-wash facilities must be provided in areas where an exposure is likely to occur. Suitable first aid facilities should be readily available in case of exposure.	Provide alternative emergency assembly areas where the areas may be affected by wind-borne substance

PRECAUTIONS:

1. The following precautions should be observed when using hazardous substances.

2. Suitable safety and warning signs as indicated below should be displayed in areas where hazardous substances are stored, handled or used.

Fire and explosion	Unauthorised entry	Exposure to hazardous substances (Refer to MSDS)
		

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SAFE WORK PROCEDURES
LADDERS

SPECIAL INSTRUCTIONS:

1. Industrial ladders only are to be used at a workplace – domestic ladders **must not be used.**
2. Always select the most appropriate ladder for a task, taking into account the nature and the duration of the task.
3. Always face a ladder to climb or descend, climb or descend slowly, using both hands on stiles (or rails if fitted).

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Selection	Slips, falls Electric shock	Access only to roof, platform, etc., with no work process – extension ladder. Short duration and light maintenance work – step ladder is suitable. Longer duration work, more complex tasks, picking stock from shelves, racking, etc – platform ladder. Non-conductive ladders only are to be used on electrical work.	Secure ladder to prevent moving. Open legs fully and secure brace. Ensure that foot stops are in good order and working correctly.
2. Inspection	Damage to ladder	Inspect stiles for cracks, splits or impact damage. Inspect reinforcing wire (if fitted) – must be intact. Inspect rungs or steps -no wear or damage, and be clean of oil or grease, etc. Non-slip ladder feet must be fitted correctly, and be in sound condition. Platform ladders must have rubber caps fitted to all feet, and legs must slide freely without binding.	**Do not use** ladders if damaged, worn or missing parts.
3. Setting up & use	Falls Electric shock	Footwear should have a non-slip sole, and be free from oil, grease or other matter which may affect grip. Ladders should always be set up on a firm, clean, level surface. Do not "block up" under ladder feet – use ladder leveller or other sound means of provision of a sound footing. Access ladders such as extension ladders must extend at least 1 metre above the level to be accessed, and be secured against accidental movement. Ladders should be set up with a slope of 4 up, 1 out. Avoid carrying anything in the hand while climbing or descending a ladder – use other means of hauling tools, materials, etc, up to the work level. Never use a ladder as a means of crossing a space or opening. Do not use conductive ladders near electricity wires.	
4. Fixed ladders	Falls	Means of preventing a person falling (such as cages, fenced platforms, ladder safety systems) are to be provided on fixed ladders	

PRECAUTIONS:

1. Where applicable, suitable safety and warning signs should be displayed in areas where ladders are used.

SAFE WORK PROCEDURES
MANUAL HANDLING

SPECIAL INSTRUCTIONS:

1. A risk assessment must be carried out of all tasks involving bodily exertion to identify activities which could result in injury to a person carrying out that task.

2. **Information, training or instruction in manual handling techniques must not be used as the sole or primary means of controlling risk unless altering the workplace, environmental conditions, the systems of work, the objects used in the task, or the use of mechanical aids are not practicable.**

3. All persons required to lift or carry loads must be trained in correct manual handling techniques, including task assessment and team lifting.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Assessing risk from manual handling	Weight, size and shape of the object to be lifted	**There is no "safe" maximum load that a person may lift.** The muscular effort required to lift, lower or carry a load is determined by the size, shape and nature of the object, and the postures, movements, forces, frequency and duration involved in the task.	Bigger, heavier and bulkier loads require greater effort to move them and impose a higher risk.
	Distance of the load from the body	A load at a greater distance from the body will impose a greater stress on the body than a similar load at a closer distance.	The stress placed on the body is a function of load x distance. (The stress on the body is doubled as the distance from the body is doubled).
	Height required to lift	Lifting a load a higher distance places greater strain on the body.	
	Frequency and duration	Increased frequency and duration of lifting increase the risk of injury.	
	Unequal loading on the body	Lifting or carrying a load to one side or in one hand puts more stress on the body than handling the load with both hands.	
2. Identifying hazardous tasks	Task factors	The following tasks must be analysed for risks due to manual handling – • tasks with which an injury due to overexertion can be associated, • tasks which involve repetitive or sustained application of force, awkward postures, movements, high force, or sustained vibration, • manual handling of live people or animals, and • manual handling of loads that are unstable, unbalanced or difficult to hold.	Similar tasks will present different levels of risk to different persons due to variations in body size, strength, age, gender, experience, health, and fatigue levels.
	Environmental factors	Persons will be at greater risk of injury if they are exposed to high air temperatures, high humidity or low temperature.	Risk of injury is increased when wearing heavy or thick clothing.
3(a). Controlling workplace factors	Workplace layout	Eliminate or reduce bending movements and postures by – • providing adjustable height work tables and workstations • minimise lifting and lowering of work objects, and • providing enough work space to allow upright working posture. Eliminate or reduce twisting, reaching , pushing, pulling, holding or carrying movements when handling, carrying or storing items and materials.	Match work height to worker wherever possible. Use mechanical aids to handle and transport loads. Store heavier and frequently used items at waist level where possible.

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Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
3(b). Controlling workplace factors	Workstation design	Design workstations so that workers are in an upright position with shoulders lowered and upper arms close to the body, with working height and objects roughly level with the worker's elbows (sitting or standing).	Provide adjustable workstations to make work height suitable for the person and the task.
3(c). Controlling workplace factors	Working position	Determine the most appropriate working position for the task to be performed, taking into account the frequency and duration of the task, and the objects, equipment and tools required. Provide mixture of tasks where possible to allow a variety of postures and movements, including a mixture of standing and sitting tasks. Provide opportunities for workers performing seated or standing tasks to vary their postures and movements.	Provide properly designed adjustable chairs for persons working in a seated position. Provide stool or support, footrest and insulating floor covering (matting, duckboards, etc) for persons working in a standing position.
3(d). Controlling workplace factors	Design of work and work flow	Redesign size, shape and weight of objects to eliminate handling risks. Ensure that tools, plant and equipment meet ergonomic guidelines. Organise flow of work to reduce or eliminate overload during peak periods. Reduce prolonged exposure to movements and postures by rotating tasks.	Implement purchasing controls to ensure that materials, tools and equipment do not pose a risk of injury to workers.
4. Provision of aids	Lifting of loads Movement of loads	Provide mechanical aids to move and handle loads (eg, conveyors, cranes, hoists, forklifts, pallet jacks, trolleys, etc). Ensure that items for moving loads that require the use of human effort to move (trolleys, pallet jacks, pedestrian forklifts, etc) are maintained in a safe operating condition, and are not loaded in excess of their rated capacity.	Use load balancers and supports to move loads and tools. Ensure that the working load limit (WLL) is clearly displayed on equipment to prevent overloading.
5. Training of workers	Movement of loads Manual movement of loads	Training needs will depend on the task(s) to be carried out and the risks. Workers must understand – • what sort of manual handling is hazardous • the effects on the body, and how injury can be prevented, and • how to select and use appropriate risk controls such as mechanical aids and safe systems of work. Training in how to select and use appropriate manual handling techniques should be conducted by an appropriately skilled person, who is conversant with the causes, effects and prevention of manual handling injuries. The training should include information pertinent to the types of loads to be moved, correct lifting postures and techniques, and team lifting procedures where team lifting is carried out on a regular basis. Supervisory staff must also be trained in safe manual handling techniques.	**Information, training or instruction in manual handling techniques must not be used as the sole or primary means of controlling risk unless altering the workplace, environmental conditions, the systems of work, the objects used in the task, or the use of mechanical aids are not practicable.** The capacity of a team during a lift is reduced by 10-20% for a 2 person lift and more for 3 or more.

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SAFE WORK PROCEDURES
MOBILE CRANES

SPECIAL INSTRUCTIONS:

1. Only those persons who are holders of the appropriate Certificate of Competency or license are to operate a mobile crane.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Mechanical failure	Inspect booms and jib regularly for evidence of damage or distortion. Check fluid and oil levels, and inspect hoses, pipes and rams for leaks. Inspect tyres, check lights, steering, horn, flasher, steering, and controls. Inspect winch cable, hook, slings and chain sets, rings and terminal fittings. Check that load chart is fitted, and operation of load gauge (if fitted) Ensure that basic PPE for construction site work is on board and worn. Ensure that log books are up to date, on board and available for inspection.	Report any damage or distortion immediately – do not use crane until it is inspected and deemed safe to use by a competent person. Wear **head, eye and foot protection, and high-visibility garment** on construction sites.
2. General precautions	Unsafe site conditions	Check access to site or job, and what ground conditions can be expected. Check type and weight of loads to be lifted, and whether special fittings will be required (eg, plate lifters, spreader bars, etc,). Check for additional PPE needed over usual construction site requirements. Check whether dogman (if required) will be on site or must be provided. Obtain name and details of person who will be in charge of work on site.	Pads or packing must be available. Special fittings should be available for difficult loads or locations. Loads over 1 tonne or complex or unusual loads must only be slung by a qualified person.
3. Travel	Obstructions	Plan route to job to ensure that travel will not be affected by traffic, road works, low bridges, or other obstructions or restrictions. Ensure that safe travel speed of crane will not cause traffic problems.	Select route with adequate width and height clearances. Avoid freeways, etc.
4. Site safety	Electric shock	Check clearance under overhead electric wiring to maintain safe distance. Ensure that planned access to actual work area is not obstructed. Liaise with site contact to find out who will be supervising the work on site, and obtain any specific instructions relating to the job to be done.	Use an observer when operating or travelling under low wiring.
	Traffic and collision	Traffic controller will be required where crane operations will be subject to disruptions from other traffic on site. Where working on or in near vicinity to roadways, lane closures and traffic control may be necessary to ensure safety of motorists and public.	Observe directions of traffic controller. Permit to work may be required. Use correct road work signage.
	Persons being struck	Working area where crane is to work should be restricted access only. Ensure that adequate room is available to access materials, etc, to be lifted, and that sufficient space to manoeuvre with the load is available.	All persons in area must wear high-visibility garments.
	Overturning	Check ground conditions to make sure that the crane will remain stable. If necessary, place pads or packing under outriggers to ensure the stability of the crane when lifting loads. Exercise care when operating a pick and carry mobile crane on sloping ground to not exceed	Do not lift loads unless crane is on a sound, stable surface.

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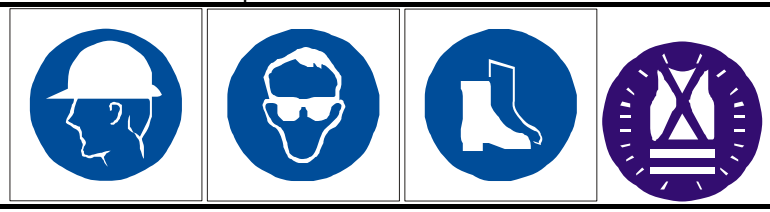
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
5. Slinging and fittings	Failure and breakage Selection and use Uneven and long loads Heavy loads	Carefully inspect all hooks and fittings, slings and chain sets, etc, before use for evidence of wear, damage or distortion. Dispose of or destroy if faulty. Select lifting gear which is most suitable for the load to be lifted, and which will not result in damage to either the load or the lifting gear. Load tables on sling sets must be used when using multi-legged sling sets. Exercise care not to overload individual legs when slinging uneven loads. Use strongback when lifting long loads to reduce angle between sling legs. Check mass of heavy loads to ensure that safe lifting capacity is not exceeded, and that capacity of slings and chain sets is not exceeded.	Worn, damaged or distorted gear **MUST NOT BE USED.** Hooks must have safety latch. Avoid twisting of chain legs which can cause ring to turn out of hook. Uneven, flexible loads, and loads over 1 tonne must be slung by a certificated dogman only.
6. Operation	Overturning – outrigger cranes Overturning – pick and carry cranes Electrical hazards	Ensure that outriggers are placed on firm, level, and stable surface. Do not exceed safe loads as specified on the crane's load charts. Do not lift with crane when wind speeds exceed the recommended safe wind speeds listed in the manufacturer's operating manual. Exercise care when lifting with a pick and carry crane on sloping ground, as side slope will drastically affect the stability of the crane under load. Carry loads as close to the ground as possible to reduce overturning risk. Always carry the load on the "uphill" side of the crane where possible. Use tail ropes on loads to prevent swinging while being carried. Ensure that cables and loads being slung do not come into close proximity to electric wiring and installations.	Level crane on before lifting. Add mass of sheaves, fittings, etc. Allow for mass of fly jib (if fitted) when calculating total mass that can be lifted safely. Refer to side deterioration charts. Travel should be up and down slopes, not across slopes. Avoid holes, bumps if possible. Use observer to ensure that safe approach distance is maintained.
7. Maintenance and repairs	In-service failure under load	Repairs to any load –bearing part of the crane (jibs, winches, etc) must be carried out by a competent person who is authorised to carry out the work, and be inspected (if necessary) by the certifying authority before being returned to service. Approved parts and fittings only must be used for load-bearing purposes.	All repaired or new parts must comply with instructions and manufacturer's specifications. Requirements of any applicable Standard must be followed.

PRECAUTIONS:
The following precautions are to be observed in areas where these procedures are carried out.

Minimum requirement for work on construction sites



Additional protection that may be required

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SAFE WORK PROCEDURES
NAILING TOOLS

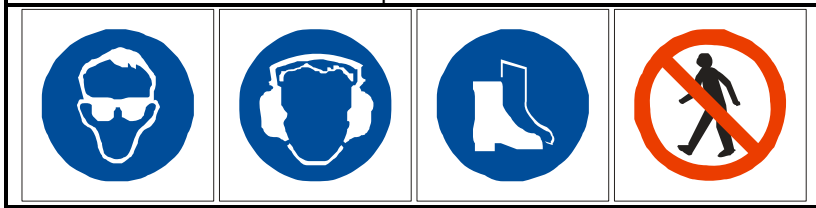
SPECIAL INSTRUCTIONS:

1. Only those persons who have been trained in the safe use of and who are authorised to do so are to operate nailing tools.
2. Areas where nailing tools are used are to be clearly identified with appropriate warning signs.
3. "Bump fire' operation is to be done only by operators who have been specifically trained to operate safely in this mode, and in only in specially laid out work areas.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. General precautions	Air supply	Check correct air supply and pressure before connecting the tool.	
	Pre-use inspection	Inspect tool for damage, and ensure that it is in good working order.	Check tool safety mechanisms.
		Check that the tool is correctly and securely connected to the air hose.	
		Check operation of all controls and safeguards before loading fasteners.	
	Maintenance	Use only the correct tools to undo screws and bolts.	Prohibit unauthorised repairs.
	Air supply	Air supply must be fitted with water trap and oiler.	Do not use air from cylinders.
2. Preparation	Loading fastenings	Only use fasteners as approved by the manufacturer for the tool.	
		Remove tool from air supply to load fasteners into the tool.	
3. Work area	Entry into work area	Restrict entry into work area to those persons involved in nailing only.	**Restrict unnecessary access**.
	Flying objects	Arrange work so that other persons will not be in the line of fire of a tool.	
4. Operation	Flying projectiles	**Never point** a nailing tool at another person – **never** assume tool is empty.	**Type 1 footwear** must be worn.
	Accidental firing	Do not depress or hold down trigger unless nose piece is firmly pressed against the work piece to be fastened.	Keep fingers away from trigger until ready to fire.
	"Bump firing"	"Bump fire" guns must not be used on ladders or other elevated areas.	Use sequential firing type of tool.
	Flying particles	Do not overreach, and keep proper footing and balance when operating.	Keep hands clear of firing area.
	Noise	Chips, dust, fasteners, etc, may be ejected from tool and work when firing.	**Eye protection** must be worn.
	Damage to tool	Hazardous noise levels will be present, especially in enclosed areas.	Wear **hearing protection.**
		Provide a safe place where a nailing tool can be placed between uses.	

PRECAUTIONS:

1. The following precautions are to be observed when using nailing tools.
2. Suitable safety and warning signs as indicated below should be displayed in areas where nailing tools are used.

Operation	
	

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SAFE WORK PROCEDURES
OVERHEAD CRANE

SPECIAL INSTRUCTIONS:

1. Only those persons who have been trained in the use of and who have been authorised to do so are to operate an overhead crane.

2. Loads over 1 tonne in weight or complex loads should only be slung by a suitably qualified person who holds the qualification of dogman or rigger.

3. A pendant-operated or remote-operated bridge crane having no more than 3 powered operations can be operated by a competent person who has been trained in the operation of the crane.

4. Cranes with additional operations or cranes operated from a cabin mounted on the crane must only be operated by a person holding the appropriate qualification as a crane operator.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Inspection of crane	Movement of components	Ensure that crane moves freely on the rails, and that locks or clamps (if fitted) hold bridge firmly in the selected position. Check for free movement of carriage across bridge. Check operation of winch and any fitted lifting components.	Do not use if faulty or damaged.
	Overloading of crane	Ensure that the working load limit (WWL) of the crane is clearly displayed on or adjacent to the crane.	Do not overload crane or lifting equipment.
	Controls	Controls on pendants or remote controllers should be clearly identified with both the function and the direction that the button or switch controls. Control directions must be clearly displayed on the underside of the crane.	
2. Checking of slings & lifting gear	Failure of parts	All slings, chains, terminal equipment (such as shackles, links, etc) must be inspected for excessive wear or damage before and following use.	Faulty or defective equipment **must not be used.**
	Overloading of parts	All slings and parts must be clearly stamped, tagged or otherwise marked with the working load limit of the equipment.	Observe all load limit data and tables when slinging loads.
	Cuts, penetration injury	Check all wire rope slings for broken wires; discard if over 10% of wires are broken in one rope lay or any length of the rope equal to 8 times the diameter of the rope.	Use **leather or cut-resistant gloves** when handling wire ropes.
3. Slinging of loads	Overloading of gear	Ensure that method of slinging does not result in the loads in excess of the working load limits of lifting gear.	Refer to slinging tables.
	Cuts, hand injuries	Cut-resistant gloves must be worn when handling rough or sharp objects.	**Hand protection** must be worn.
	Damage to slings	Avoid contact of slings with sharp corners and edges of loads. Use shortening links to shorten legs of chain sling sets.	Provide packing to reduce bends. **Do not** use bolts to shorten legs.
	Stability of load Damage to load	Ensure that slings or parts cannot slip or move when load is applied. Provide packing or insulation where a sling could damage the load.	Check slinging before lifting load fully.

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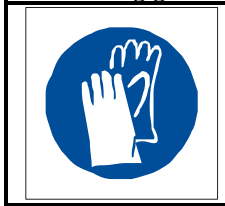
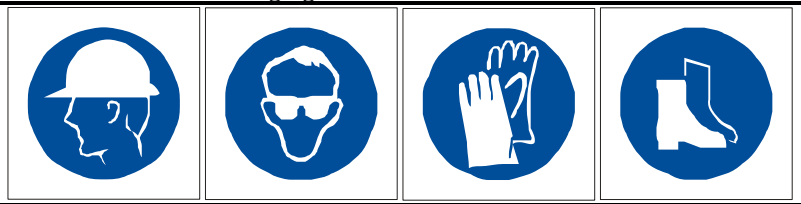
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Movement of loads	Falling objects	Loose parts must be placed in a cage or box; **do not** lift on an open pallet.	
		Loose or dislodged parts will create a risk of head injury.	**Head protection** must be worn.
		Falling objects will create a risk of injury to the feet.	**Type 1 footwear** must be worn.
	Foreign body in eyes	Dust and other particles falling from loads will create risk of eye injury.	**Eye protection** must be worn.
	Objects striking	Exercise care when moving long objects which could swing when moving.	Use tail rope to control long loads.
	Load swinging	Avoid sudden movements or jerking when travelling.	Use tail rope to control movement.
	Striking other persons	Slung loads should not be moved over other persons.	**Prevent unauthorised entry**.
5. Depositing loads	Damage to load	Ensure that location where load is to be deposited is clear of obstructions.	
	Damage to slings	Provide packing or dunnage under loads when lowering on to ground to avoid crushing and other damage to slings and gear.	
		Do not use crane to pull caught slings from under loads.	**Hand protection** must be worn.
	Risk of foot injury	Keep feet clear of loads being deposited on ground.	**Type 1 footwear** must be worn.

PRECAUTIONS:

1. The following precautions are to be observed when using overhead cranes.

2. Suitable safety and warning signs as indicated below should be displayed in areas where overhead cranes are used.

Checking gear	Slinging and movement of loads	Entry to work area	
			

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SAFE WORK PROCEDURES
POWER TOOLS (ELECTRIC)

SPECIAL INSTRUCTIONS:

1. Electric power tools should not be used unless the operator has received training or has been fully instructed in the safe use of the tool.
2. Appropriate personal protective equipment must be worn when using power tools.
3. Electric power tools must only be used on circuits protected by a residual current device (RCD) and/or safety switch.

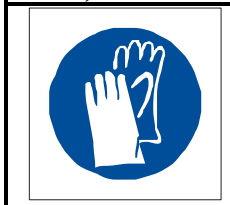
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Electric shock	Check casing for damage, cracks and missing screws. Inspect lead and plug for damage; current test tag must be attached. Make sure that controls operate smoothly.	If any damage, missing parts, or out of test, **do not use machine** – arrange for immediate repairs.
	Cuts, lacerations	Where applicable, ensure that guards are fitted and operating correctly – guards should move easily, and spring back to original position when released. Check suitability of blade, bit or cutter for work to be performed. If using fibre blade for metal cutting, inspect blade for cracks, damage, or excessive or uneven wear. Ensure that handles and grips are fitted firmly, and do not move.	**Do not use** tools without guards, or lock or tie guards in open position. Do not use unsuitable parts. Replace blade if teeth chipped, broken or missing.
2. Maintenance and replacement of cutters	Cuts, lacerations	Place machine on firm, stable surface or bench to carry out maintenance. Use correct (supplied) spanners and tools to remove cutter.	Wear **leather gloves** when handling rough or sharp parts.
	Foreign body in eye	Use brush to clean dust and debris from guards, spindles and backing plates. Ensure spindle thread is undamaged, and that backing plate sits flush. Ensure that blade speed matches that of a saw; that the spindle holes match the diameter of spindles, and that spindle diameters of cutters match that of the cutter holder. Mount blades, cutters, washers and nuts in correct order, and tighten firmly with the correct tools and spanners.	Wear **eye protection** if using compressed air for cleaning. **Do not use** incompatible cutter, or cutter which does not meet all of the criteria listed at left. Ensure all surfaces are clean. **Do not over tighten** nuts.
3. Preparation of work area	Slips, trips and falls	Ensure that floor or working surface is free from rubbish and debris, and that a good foothold is available for persons using power tools.	
	Fire (ignition source)	Ensure that flammable liquids or other readily ignited materials are cleared from area, or covered to protect from sparks. Observe fire restrictions.	Provide suitable **fire extinguisher**. Use **fire blanket** to cover.
	Flying particles	Prevent sparks from entering or affecting adjacent work areas. Restrict entry into area where grinding is to be carried out.	Use **welding curtain** or similar. **No unauthorised entry** to area.
	Falling objects	Ensure that object being worked on is secured and prevented from accidental movement while work is in progress.	Wear **Type 1 footwear.**

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Operation	Flying particles	Always work so that sparks and debris are directed away from body. Do not direct sparks or debris towards another person.	Wear **protective clothing** (apron, overalls, long sleeves and trousers)
	Cuts, lacerations	Always cut away from the body – never cut towards the body.	
	Foreign body in eye	Avoid dust and debris in eyes – **eye protection must be worn.** In restricted areas, or where sparks or debris are reflected back towards the user, the use of additional protection to the eyes and face will be necessary.	**Eye protection** must be worn. Use **face shield** in addition to other eye protection.
	Noise	Many power tools will generate high noise levels in operation, especially in enclosed or restricted areas.	Wear **hearing protection**.
	Dust	Provide mechanical ventilation where dust generated by the work process will hang in the air, and will be breathed in or lodge in eyes.	Wear suitable **particulate dust mask** or **respirator.**
	Vibration	Uneven surface being ground will cause movement of grinder in hands. If vibration seems excessive, switch grinder off and inspect disc for damage.	Wear heavy **gloves** or **gauntlets** to reduce the effects of vibration.
	Falling objects	Support work pieces as fully as possible to prevent falling when cut.	Wear **Type 1 footwear**.
5. Special precautions	Toxic dust	Medium density fibreboard (MDF) (Craftwood) contains a formaldehyde based adhesive which is toxic, and dust must not be inhaled. Prevent entry of persons into areas where MDF is being worked on. Asbestos based materials **must never** be cut using power tools.	**Type P2 particulate dust mask** or **respirator** must be worn. **No unauthorised entry**.
	Harmful dust	Avoid breathing dust generated by cutting of metal with circular saws fitted with fibre blades.	**Dust mask** must be worn.
	Risk of fire	Fine sawdust is extremely and readily combustible.	**No smoking** in areas where sawdust may be present.
	Risk of electric shock	Take care to not expose leads to damage from the work process. Always ensure that users of power tools are protected from electric shock.	Keep leads off floor. Always use safety switch or RCD.
6. Storage	Risk of electric shock	Power tools should be stored in a purpose-built case or container designed to protect them from damage. Cutters, drill bits, etc, which nay be damaged during storage should be removed before storing the tool. Drills, cutters, blades and bits should be stored separately in a container which will prevent them being damaged.	
	Risk of personal injury	Where possible, ensure that sufficient supplies of personal protective equipment which will be required when the tool is used are available with the tool.	

PRECAUTIONS:

1. The following precautions should be observed when using electric power tools.

2. Where applicable, suitable safety and warning signs should be displayed in areas where electric power tools are used.

Cuts, lacerations	Vibration	Flying particles	Falling objects	Noise	Dust	Risk of fire	Unauthorised entry
		 			 	 	

SAFE WORK PROCEDURES
RUBBISH AND WASTE DISPOSAL

SPECIAL INSTRUCTIONS:

1. The following items **must not** be disposed of as general waste - asbestos or asbestos containing products, sharps, biological and clinical waste, paints, oil, fuels, and waste chemicals. (See also Asbestos and asbestos containing materials, Chemicals (Hazardous materials), Combustible Liquids).
2. Most waste products can be sorted at recycling facilities. Consult local recycling authority for specific instructions or requirements for recycling.
3. **N0** smoking or open flames to be allowed in areas where waste of **any** type is stored or handled.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. General waste	Cuts, scratches, etc	General industrial and commercial waste can be disposed of in landfill. Sort waste to separate recyclable items from non-recyclable waste. Follow recycling instructions as provided by the recycling facility. Note:	**Hand protection** should be worn. Provide bins for recycling.
2. Scrap metal	Cuts, lacerations Falling objects Strain injury	Scrap metal should be sorted into types for disposal at a scrap metal facility. Separate bins should be provided for different metals. Keep scrap metal free from other contaminants. Obtain assistance or utilise mechanical aids to move large and heavy objects.	**Hand protection** must be worn. Wear **Type 1 protective footwear**. Observe recommended manual handling practices.
3. Putrescible waste	General health risk Vermin Odours	Bins and receptacles to be emptied and washed daily. Keep putrescible waste containers closed and sealed. Keep containers in cool place if possible to reduce putrescence.	**Hand protection** should be worn. Wash and disinfect areas where putrescible waste held.
4. Paper and cardboard	Cuts, scratches Over-exertion/strain injury	Keep waste paper and cardboard free from other waste products. Do not place paper waste into plastic bags for disposal. Keep bundles and containers of paper waste within safe lifting limits.	**Hand protection** should be worn. Observe recommended manual handling practices.
5. Glass	Cuts Over-exertion/strain injury	Glass waste should be kept in metal or heavy plastic containers. Avoid re-handling of broken glass. Use mechanical means to handle containers of glass. Do not contaminate glass with vitreous waste material (eg, china, etc).	Wear **leather or other cut-resistant gloves** to handle glass. Adopt correct manual handling practices.
6. Plastics	Cuts, scratches	Cut or damaged edges of plastic containers may be extremely sharp. Plastics will produce hazardous gases and smoke when burnt.	**Hand protection** should be worn.
7. Sharps	Cuts, scratches, needle-stick injury	Sharps should be enclosed in metal or plastic containers for disposal. Used syringes, etc, must be placed in a specifically marked container which will not allow the items to be removed from the container.	**Puncture–resistant gloves** must be worn when handling sharps.

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Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
8. Biological and clinical waste	Infections, needle-stick injury	All bio-waste must be placed in containers which carry the international bio-hazard symbol. Persons handling biological or clinical waste should wear appropriate hand and body protection at all times. Eye and face protection must be worn where a risk of splash of body or similar fluids may be present. A P1 particulate filter mask may be required when handling bio-waste where larger quantities and risk of splashes exist. Used syringes, etc, must be placed in a specifically marked container which will not allow the items to be removed from the container. Prevent unauthorised access to biological and sharps waste.	**Hand, body, and eye protection** must be worn. **P1 particulate mask** may be required. No unauthorised entry.
9. "Green" waste	Over-exertion, strain injury	Fresh vegetation waste will contain a high percentage of water. Avoid contact with sap and other fluids which may be irritating to eyes and skin.	Observe correct manual handling procedures. **Hand protection** must be worn.
10. Building waste	Splinters, sharp objects Over-exertion, strain injury	Check building waste for presence of hazardous materials, which should be separated from general waste. Dampen down dusty materials with water. Exercise care when handling materials which could be sharp or contain sharp objects (nails, glass, metal, etc.). Exercise care when handling large or heavy objects – obtain assistance if necessary.	**Foot protection** must be worn. **Dust mask** may be required. **Hand protection** must be worn. Observe correct manual handling procedures.

PRECAUTIONS:

1. The following precautions should be observed when handling rubbish and waste.

2. Suitable safety and warning signs should be displayed in areas where rubbish and waste is handled and disposed of.

Hand protection	Eye protection	Dust mask	Foot protection	Body protection	Biological waste	Risk of fire
						

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SAFE WORK PROCEDURES
SAFETY HARNESSES

SPECIAL INSTRUCTIONS:

1. All fall arrest harnesses in Australia must comply with Australian Standard AS 1891.1 Industrial fall-arrest systems and devices – Safety belts and harnesses.
2. Safety harnesses must only be used for the purpose for which they were designed, and in strict accordance with the manufacturer's instructions.
3. All persons required to use a safety harness must receive instruction and training in their use before they are allowed to use the harness.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Marking	All belt, harness and lanyard assemblies and fall-arrest assemblies must be clearly and indelibly marked or permanently labelled by the manufacturer with the relevant information listed in the column at right.	1. The designation of the device, e.g., 'pole strap', 'lanyard assembly', etc, 2. The manufacturer's name, trade name or trade mark, 3. The serial number of the device, 4. The maximum allowable free fall (for lanyard assemblies and fall-arrest harnesses), 5. Any necessary instructions for assembly, fitting and putting-on, 6. A statement indicating that the device has a specific application (if applicable), 7. A statement indicating that the device is designed for use in one or more specific configurations together with any applicable limitations, e.g., attachment points (if applicable), 8. The location of the primary load-bearing attachment hardware for the attachment of lanyard assembly, pole strap or restraint line, and 9. The month and year by which the device must be taken out of service (this must be no more than 10 years from the date of manufacture).	**Harnesses must only be used for the purpose for which they were designed.** Use of harnesses for purposes other than those for which they were designed may result in failure of the device to provide the desired level of protection, or expose the wearer to unacceptable risk levels in the performance of the task being carried out. Safety harnesses more than 10 years old **must not be used**.
2. Inspection	Equipment is to be removed from service if any of the conditions listed at right are detected during inspection.	1. Equipment is more than 10 years old, 2. Labels have been removed, or are missing, illegible or obliterated, 3. The device has been exposed to extremes of temperature (hot or cold), or if there is evidence of melting, stiffness or charring, 4. It has suffered damage from acids, caustics or organic solvents, 5. The device shows signs of excessive wear (e.g., "furry" or frayed), 6. The device shows signs of excessive general corrosion, pitting corrosion, or any cracked, distorted, burred, worn or broken hardware, 7. Knots in any part of the equipment, 8. Loss of resilience, discolouration, or other visible damage that causes doubts as to the strength of the equipment or its ability to withstand potential overloading,	Faulty or out-of-date equipment **must not be used**.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
3. Inspection (continued)	Equipment is to be removed from service if any of the conditions listed at right are detected during inspection	9. Part mechanisms are not moving freely, 10 Reduction in the cross-sectional area of rope or webbing, or loose or unravelling of fibres, strands or stitching, or 11. Excessive contamination not able to be removed by approved cleaning methods.	Faulty or out-of-date equipment **must not be used**.
4. Use	Persons falling	Lay out harness after inspection to ensure that it is not "crossed" or tangled. Attach lanyard assembly to attachment point on rear of harness. Put on to body as any other garment of a similar type. Connect buckles, ensuring that belts are not crossed or twisted. Tighten belts until harness is firm on body (does not need to be over tight). Ensure that a full range of movements can still be carried out while wearing the harness. Recheck all belts and buckles – if any movement evident, harness should **not be used.**	**Harnesses must be fitted correctly** for safety in use. Return device to manufacturer or supplier for attention, or discard.
5. Withdrawal from service	Equipment must be removed from service if either of the events listed at right occur.	1. The equipment is involved in a fall, or 2. The equipment is more than 10 years old.	Stressed or out-of-date equipment **must not be used**.
6. Maintenance		Normal cleaning of synthetic textile materials can be carried out with a mild soap and warm water.	Contact manufacturer or supplier for specialist advice on cleaning.

PRECAUTIONS:

1. Where applicable, suitable safety and warning signs should be displayed in areas where safety harnesses are required to be used.

Use of safety harness						
						

SAFE WORK PROCEDURES
SCAFFOLDING

SPECIAL INSTRUCTIONS:

1. All scaffolding from which a person or object could fall 4 metres or more must be erected by a person holding a Certificate of Competency as a Scaffolder.
2. All scaffolding other than prefabricated types must be erected by a scaffolder.
3. Appropriate controls must be implemented to prevent unauthorised access to unattended scaffolds.
4. Do not work closer than 4.0m to electrical service lines unless insulated matting and tiger tails are fitted by a person authorised by the electricity supply authority.
5. The safe working load of any component of the scaffold must not be exceeded. SWL should be marked on all scaffolds.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. General precautions	Space restrictions Working height Assembly	Component scaffolds generally have minimum width of 1.2m, max. 3.0m. Freestanding scaffolds must not exceed 3 times the minimum base dimension in height – ties or outriggers are required above this height. Always follow manufacturer's assembly instructions when erecting scaffold. Competent persons only are to erect scaffolding. Use only components designed and provided for the type of scaffold. Appropriate warning signs must be fitted to unattended incomplete scaffolds to prevent unauthorised access. Check the stability of the completed scaffold before allowing any person to climb on to or work from the scaffold.	Ensure that all components are fitted together correctly. Ensure that all mating surfaces are clean and undamaged. Do not mix components. Use barrier tape, etc, to prevent unauthorised access. Do not climb on to or work from an unstable scaffold.
2. Erection – Fixed	Foundation Footings Bracing	Ensure that footings are firm (compacted), well drained, and stable. Timber sole boards and baseplates must be used under feet on soft surface. Use levelling screws to ensure that all uprights are vertical and that all feet are in firm contact with the surface on which it is erected. Fit plan and vertical bracing to ensure stability of scaffold.	Dig into slopes for level footing. Do not use metal plate under feet. Ensure that collar locking device on base frame is properly engaged.
3. Erection – Mobile	Foundation Castors Bracing	Mobile scaffolds should only be used on a firm, level, and stable surface. Ensure that all wheels turn smoothly, and that all wheel locks are operable. Use levelling screws to ensure that all uprights are vertical and that all wheels have full contact with the surface on which it is erected. Fit plan and vertical bracing to ensure stability of scaffold.	Mobile scaffold must not be used on slope of more than 7 degrees. All wheels must have locks fitted. Ensure that all wheels are locked during erection of scaffold.
4. Access	Position of ladders Security of ladders	Access ladder/s must be fitted inside the scaffold assembly for access to the working platform. Ladders must be hooked over the end frame, be braced to a lower end frame, and extend at least 0.9m above the working platform.	Climbing on scaffold frame should not be avoided. **Never climb up the outside of a scaffold.**
5. Working platforms	Construction of platform Guardrails and edge protection	Working platform should be a "captive" type which locks onto the frame. Working platform surface should be non-slip finish. Never place a loading greater than the marked SWL on a working platform. Each working platform and access platform must have full edge protection comprising handrail, midrail and toeboard or a handrail and infill panel.	The load on the platform includes the weight of all persons, plus tools, materials and equipment. Top rail should be between 0.9m and 1.1m above working surface.

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Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
6. Working on scaffolds	Risk of falling	Always face ladder, climb slowly, keep both hands on stiles. Use rope to raise tools, material and equipment to working platform. Do not reach out from scaffold beyond arms length. Keep whole of body within confines of guardrails. Do not use ladders of any type from a working platform of a scaffold. Hoisting equipment must not be attached to scaffold unless explicitly indicated that it is safe to do so by manufacturer or supplier. Wear protective footwear if material or equipment being handled or used could pose risk of foot injury should it fall.	Climb and descend ladders safely. Do not carry objects in hand while climbing or descending ladder. Work only from working platform. Exercise care when raising tools, equipment and materials to working platform. **Foot protection** must be worn.
	Falling objects	Provide exclusion zone around scaffold where risk of falling objects is present (if practicable). Head protection must be worn by persons working in vicinity of scaffold if risk of being struck by falling objects exists.	Erect containment screen around scaffold if exclusion zone cannot be provided. **Head protection** must be worn.
	Electrical hazards	Exercise care when handling metal objects in vicinity of electric wiring.	Keep clear of electrical hazards.
7. Relocation of mobile scaffolds	Stability – mobile scaffolds	Ensure that scaffold wheel locks are engaged before any person climbs on to or works from the scaffold. A scaffold must not be moved while any person is still on the scaffold. The path of travel of a mobile scaffold should be checked for obstructions, holes, electric leads and wires, etc, before moving the scaffold. Check the stability of the scaffold before re-using after relocating – relock wheels and adjust levelling screws if necessary.	Remove loose items before moving. Move scaffold carefully to avoid tipping over.

PRECAUTIONS:

1. The following precautions are to be observed, and suitable safety and warning signs as indicated below displayed in areas where scaffolding is used.

Unauthorised access to scaffold	Working on scaffold	
	 	

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SAFE WORK PROCEDURES
SCISSOR LIFT

SPECIAL INSTRUCTIONS:

1. Persons should not operate a scissor lift unless they have been instructed in the precautions to be observed and the safe use of the machine.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Pre-start checks	Loss of power Loss of control Risk of falls Accidental movement	Ensure that the battery (or batteries) is fully charged before using the scissor lift for any working at heights. Check liquid levels (fuel, oil, coolant, hydraulic oil, etc) before operation. Check all controls for correct operation before commencing use. Check all movements before commencing – should be smooth and steady. Check operation of brakes, stops, outriggers, etc to ensure that unit cannot move when platform is extended. Ensure that guard fence and gate/s is secure and closes securely.	Do not use if battery power is low. Recharge battery before use. Top up liquids if levels are low. Do not use faulty equipment. Do not use if movements "jerky". Do not use if brakes or stops do not prevent all movement of unit. Check operation of gate latch.
2. Travel	Instability	Reduce speed when traversing corners, rough surfaces or where visibility is restricted (eg, blind corners, etc). Platform should be lowered before moving unit even for short distances. Keep body fully within confines of platform when travelling.	Always travel at safe speed. Corner at slow speed only. Do not travel with platform raised. Ensure that gates on cage closed.
3. Security of worksite	Collision Falling objects	Use barricades, traffic cones and signs, etc, to prevent collision of other plant or vehicles working in vicinity with scissor lift. Prevent access of persons into vicinity of scissor lift when platform raised.	Use signs barricades, cones, etc, to protect work area. Prevent unauthorised entry.
4. Working at heights	Instability Electric shock	Ensure that unit is on level surface (or is levelled with outriggers if working on uneven surfaces) before raising platform. Ensure that gates on platform guard rails are closed and locked in place. Do not reach out beyond confines of platform when working at heights. Do not "rock" unit when platform is raised. Keep safe distance from overhead catenary wires and electrical installations, or have services isolated and locked out before starting work in vicinity.	Ensure that unit is parked on a stable, firm surface before raising. Do not open gates when elevated. Wear safety belt or harness. Avoid sudden or jerky movement. Identify electrical hazards before commencing work.

PRECAUTIONS:

1. The following precautions are to be observed when operating or working in the vicinity of scissor lifts.

Prevention of unauthorised entry	Working at heights	Falling objects	
			

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SAFE WORK PROCEDURES
STATIC LINE SYSTEMS

SPECIAL INSTRUCTIONS:

1. Static line systems must be set up in accordance with configurations and comprised of components prescribed in AS/NZS 1891.2 Horizontal lifelines and rail systems.

2. Static line systems must be installed a person holding a Certificate of Competency as a rigger or scaffolder (NSW, ACT, Qld ("high-risk" construction work)), or by a competent person in other states.

3. Fall arrest systems should only be used in situations when it is not reasonably practicable to use either temporary work platforms or guardrails.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1(a). Selection of components – Permanent installations	Failure of lines under load Anchorages and fittings	Permanent lifelines (service life greater than 6 months) must incorporate galvanised steel wire rope or chain, or other approved line material. Metal components must be either resistant to or protected from corrosion. Brackets, shackles or other devices used in intermediate anchorages must be installed so that they cannot jam the cable or themselves. Apertures in fittings must be as nearly at right angles as possible to the direction of the line in both the vertical and horizontal planes.	Components must conform to the relevant Australian Standard for those components. End anchorages must comply with AS/NZS 1891.2. All other components must comply with the relevant Australian Standard.
1(b). Selection of components – temporary installations	Failure of lines under load Anchorages and fittings	Temporary lifelines may be constructed of approved load-bearing components such as fibre or synthetic rope, rope or webbing slings, steel wire rope or chain slings, or round slings. Breaking strain of slings after derating due to manner of rigging is to be 2x for steel wire rope or 4x for fibre rope or webbing slings. Approved anchors and fittings only are to be used to anchor static lines.	Ropes and slings must conform to the relevant Australian Standard. Slings must be installed with all slack removed.
2. Attachments	Compatibility of fittings Safety of fittings	A restraint or fall arrest system must be comprised of items which are compatible with one another, with negligible risk of accidental release of connections. A means of passing an intermediate anchorage without disconnection from the system must be used by all users of the system (such as use of a second lanyard, dual attachment lanyard, or mobile attachment device). Fall arrestors must be a quick-activation type to limit the amount of free fall to as short a distance as possible. Do not connect large-throat opening snap hooks to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates. Karabiners must be fitted with a screw gate to prevent accidental opening.	All systems must be installed by a competent person only. Mobile attachment devices must be permanently fixed to the system or require 2 consecutive deliberate manual actions to remove. Double-acting type snap hooks only must be used.
3. Installation of static lines	Anchorage points	Select anchor points which will resist the maximum likely impact force. Note – roof trusses must only be used as attachment points if the truss supplier specifies that it is safe to do so. A method of preventing the person carrying out the installation falling from the roof should be used when installing roof anchor points and lifelines.	Correct roof attachment fittings for the type and construction only must be used to anchor lifelines. Manufacturer's instructions for installation must be followed.

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Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Inspection of parts	Static lines Harnesses and fittings	Inspect lines, fittings and anchorages before first use and then at regular intervals to detect any faults, corrosion or damage. Any harness, safety line or other component that shows wear or damage to the extent that it may cause the device to fail **MUST NOT BE USED.** Ensure that hook is fully closed and has not become entangled in clothing.	Visually inspect static line for faults before each use. Do not use faulty equipment. Inspect hooks for correct operation before each use
5. Use of static line systems	Work on sloping surfaces Working on roofs Risk of free fall from work position Failure of system due to damage	A restraint belt is acceptable if working on a slope of 15^{o} or less, and where the length of the restraint will prevent any vertical free fall of the wearer. On roofs and slopes greater than 15^{o} and where secure footing can be maintained, a work positioning or fall arrest harness must be worn. A line and rope grab fall arrest system must be placed in front of the person to allow operation of the mechanism. A harness with a front fall arrest connection point should be used with this type of system. A fall arrest harness must be worn where there is a likelihood of a free fall of a person greater than 600mm. Use of a second lanyard, the provision of protective sleeves or covers, or the provision of equipment designed to cope with any foreseeable damage must be provided where there is a risk of damage due to use of power tools, welding, use of abrasives or chemicals, electrical hazards, or work in flammable or explosive atmospheres, or confined spaces.	Inertia reel use not recommended. Anchorage may be at foot level. A person must be connected to at least one fall arrest system wherever they are at risk of a fall. Ensure adequate fall clearance is available under work position. Risk assessment must be carried out prior to work where potential causes of damage to equipment may be present.
6. Other considerations	Rescue of fallen persons Objects falling from height	Suitable equipment to rescue a person in the event of a fall must be available within a short period to minimise risk of suspension trauma. Tools, equipment and materials should be secured from falling. Provision must be made to protect persons at lower level, either by providing suitable guardrails and edge protection, catch nets, or barring access to risk areas.	Other persons on site must be instructed in rescue procedures. Head protection must be worn.
7. Cleaning, maintenance and storage	Cleaning and maintenance Storage	Hardware and mechanical devices must be cleaned and maintained in accordance with manufacturer's instructions. Synthetic materials must be cleaned with mild soap and water. Air dry all equipment at ambient temperature before storage. Store synthetic materials away from sunlight in a cool, dry place. Harnesses should be hung or stored flat in a safe location. Any fall arrest or restraint equipment should be stored away from any unnecessary strain or pressure, excessive heat, and be protected from sharp edges, corrosive substances and other causes of damage.	Refer to manufacturer's instructions for cleaning data. Refer to label on harness. Dedicated storage should be provided for all fall arrest and restraint equipment. Store in bags provided by supplier to ensure that all parts of a system are kept together for use.

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SAFE WORK PROCEDURES
WET & DRY VACUUM CLEANER

SPECIAL INSTRUCTIONS:

1. Wet & dry vacuum cleaners must only be connected to an outlet which is protected by a serviceable safety switch.
2. All manufacturers' operating procedures as specified in the operator's manual must be adhered to in the use of these machines.
3. **Do not use wet and dry vacuum cleaner to clean up flammable liquid spills or where flammable vapours are present.**
4. Full cloth filter or collection filter bag must be used when vacuuming fine particulates such as wood or coal ash, soot, cement, plaster or drywall dust.
5. Wet & dry vacuum cleaners must not be used to clean up asbestos waste unless specifically designed for use with hazardous particulates.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. General precautions	Electric shock	Electrical appliances used in an industrial or commercial environment must be tested by a competent person at prescribed intervals for the class of workplace where the appliance is used. Appliances must be only used on a circuit protected by a safety switch. Inspect appliance and leads daily or before use if used less than daily. Do not expose wet and dry vacuum cleaner to rain or water spray.	Do not use any appliance unless it has a current inspection tag fitted. Use portable safety switch if circuit is unprotected. Do not use damaged equipment.
2. Specific precautions	Over-exertion/strain injury Slips, trips and falls Electric shock	Larger wet and dry cleaners may present an over-exertion injury risk, more especially when tank is filled with water after use. Exercise care when working on wet floors. Extension and appliance leads will present trip hazard. Do not pull or carry unit by electric lead, or run the appliance over lead. Avoid pulling cord around sharp edges or corners. Keep electric lead away from heated surfaces.	Observe correct manual handling practices. Wear suitable **footwear.** **Prevent unauthorised entry**.
3. Operation	Electric shock Damage to machine Trips and falls Dust or objects in eyes	Do not handle plug or appliance with wet hands. Refer to manufacturers' operation manual for specific operating instructions for each particular brand and model of machine. Do not use a wet and dry vacuum cleaner for any other use than for which it was designed. Do not put any object into or block openings. Keep openings free from dust, lint, hair or anything that may reduce airflow. Do not pick up anything with cleaner that is burning or smouldering, such as cigarettes, matches or hot ashes and embers. Do not use machine without dust bag and filters in place. Turn off all controls before unplugging from power outlet. Exercise extra care when cleaning on stairs. Do not allow leads to remain on floor when work completed. Exhaust air from cleaner can blow dust and debris into air in work area.	Dry hands before unplugging. Observe specific manufacturers' operating instructions. Keep hair, loose clothing, fingers and all parts of body away fro openings and moving parts. **Prevent access** to work area. **Eye protection** must be worn.

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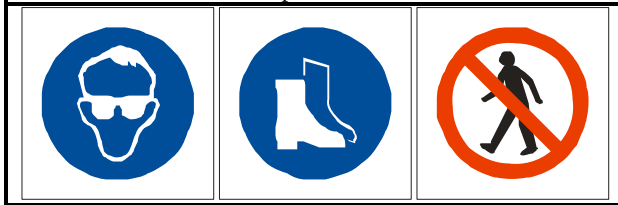
Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
4. Cleaning and maintenance	Electric shock Over-exertion/strain injury Damage to machine	Disconnect lead from power supply before removing tank cover. Isolate appliance from power before carrying out any work on the machine. Authorised persons only are to carry out work on electrical appliances. Exercise care when lifting machine on or off work bench for maintenance. Any work requiring special tools for disassembly must be referred to an authorised repairer.	Authorised persons only are to carry out appliance repair work. Empty tank before lifting. Refer to authorised repairer for technical or specialised repairs.

PRECAUTIONS:

1. The following precautions are to be observed when using a wet and dry vacuum cleaner.

Operation	
	

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PART 'A' – INDOOR CONDITIONS

SPECIAL INSTRUCTIONS:

1. Persons supervising work in hot conditions **MUST** be trained in how to recognise symptoms of heat stress, and how to treat a person exhibiting symptoms of heat stress.

2. All persons required to carry out work in hot conditions **MUST** be trained in how to avoid heat stress.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Reduction of workplace ambient temperature	Temperature reduction cannot be fully predicted due to factors such as outside air temperature, humidity, etc.	Encourage air-flow in building through use of windows, ventilators, etc. Provide means to remove heat by exhausts, and insulate heat sources. Reduce spread of hot air from hot work processes to other parts of premises. Ventilate area by means of artificial air-flow, eg, fans, etc. in areas where hot work processes generate radiant heat or high humidity.	Avoid strong draughts when providing natural or artificial ventilation. Humid conditions will reduce effectiveness of ventilation.
2. Isolation of workers from heat sources	Workers will be exposed to full effects of heat when accessing hot tasks.	Provide heat-proof or reflective screens to prevent spread of heat from source. Insulate heat sources such as plant, boilers, machinery, pipes, etc. Insulate buildings to reduce radiant heat from outside environment.	Ensure that workers are fully protected when screens or insulation is removed to provide access to hot task.
3. Reduction of thermal stress in workers.	Physical exertion Excessive clothing, etc.	Reduce physical exertion by use of mechanical aids for heavy or repetitive tasks. Minimise need for use of personal protective equipment and clothing. Consider rescheduling of high stress tasks to cooler times of day if possible.	Reduce need for heavy exertion. Reduce need for protective clothing and equipment.
4. Avoidance of heat stress	Dehydration Monitoring of conditions Conditioning of workers	Provide ample fluids to make up for losses of body fluid through sweating. Provide supply of fresh water for washing and external cooling. Inform and train workers to recognise symptoms of heat-related illness. Allow frequent rest breaks to allow workers to cool down in extreme heat. Monitor temperature and humidity in workplaces. Allow workers to acclimatise to hot working conditions.	A person should drink at least 500ml of water per hour. Establish work-rest regime where other methods are not applicable. Monitor physical response of workers exposed to hot conditions.
5. Treatment of heat stress		Develop first aid and emergency procedures, and ensure that all persons understand them and can apply them.	Train workers in methods of treating heat stress.

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PART 2 – OUTDOOR CONDITIONS

SPECIAL INSTRUCTIONS:

1. Persons supervising work in hot conditions **MUST** be trained in how to recognise symptoms of heat stress, and how to treat a person exhibiting symptoms of heat stress.

2. All persons required to carry out work in hot conditions **MUST** be trained in how to avoid heat stress.

Task sequence	Identified hazards in task	Key processes to be followed	Precautions / PPE required
1. Work planning		Encourage use of natural shade wherever possible. Provide shade structures (if practicable) where natural shade is not available.	Plan tasks to utilise shade. Provide portable shade structures.
2. Job rotation		Rotate duties to allow workers time to cool down.	Plan tasks to allow rotation.
3. Reduction of thermal stress in workers.	Physical exertion Excessive clothing, etc.	Reduce physical exertion by use of mechanical aids for heavy or repetitive tasks. Minimise need for use of personal protective equipment and clothing. Consider rescheduling of high stress tasks to cooler times of day if possible.	Reduce need for heavy exertion. Reduce need for protective clothing and equipment.
4. Avoidance of heat stress	Dehydration Monitoring of conditions Conditioning of workers	Provide ample fluids to make up for losses of body fluid through sweating. Provide supply of fresh water for washing and external cooling. Inform and train workers to recognise symptoms of heat-related illness. Allow frequent rest breaks (in shade wherever possible) to allow workers to cool down in extreme heat. Monitor temperature and humidity in workplaces. Allow workers to acclimatise to hot conditions.	A person should drink at least 500ml of water per hour. Establish work-rest regime where other methods are not applicable. Monitor physical response of workers exposed to hot conditions.
5. Treatment of heat stress		Develop first aid and emergency procedures, and ensure that all persons understand them and can apply them.	Train workers in methods of treating heat stress.
6. Solar radiation protection.	Use of clothing Use of sunscreens Use of eye protection	Long sleeves and trousers, broad-brim hats should be worn where possible. Clothing fabric must be of a UV protective type (preferably SPF50+). Ample supply of SPF 30+ sunscreen must be available for outdoor workers. Sunscreen should be reapplied after every work break or when washed off. Eyes must be protected from UV radiation and reflected and scattered light. Tinted safety glasses must be used where risk of physical eye injury exists.	Over-dressing can result in heat stress due to body over-heating. Sunscreen may be washed off by perspiration in extreme conditions. Wear sunglasses to protect eyes. Use tinted safety glasses.

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