



Site Safety Handbook



This booklet has been prepared to provide basic health and safety guidance for Convion Installers and Subcontractors.

The guidance serves a dual role:

- To set out procedures and guidance on personal safety and health matters relevant to Convion personnel.
- To provide an outline of some basic general health & safety information in respect of construction work.

It is intended to provide a straightforward introduction to relevant health and safety issues. It is not intended to be a comprehensive construction safety manual.

It is during these site and inspection activities that many Convion staff are most vulnerable to work related injury and ill-health. Special care must therefore be taken at all times when visiting site or carrying out inspections or surveys.

The essential ingredients for ensuring your health and safety during these activities are:

- planning and preparation
- the adoption of safe systems of work
- the use of suitable protective clothing and personal protective equipment
- the use of suitable access equipment, lighting, etc
- awareness of your surroundings and other activities

Convion personnel should not allow themselves to be pressured into carrying out any site activities which they consider puts themselves or others at risk or for which they do not consider themselves suitably equipped or competent.

The following list sets out the key health and safety legislation relating to the involvement of Conviron and its personnel in respect of construction work, site visits, etc.

- The Health & Safety at Work Act 1974
- The Management of Health & Safety Work Regulations
- The Personal Protective Equipment at Work Regulations
- The Provision & Use of Work Equipment Regulations
- The Manual Handling Operations Regulations
- The Control Of Substances Hazardous To Health Regulations
- The Reporting of Injuries, Diseases & Dangerous Occurrences Regulations
- The Electricity at Work Regulations
- The Noise at Work Regulation

Details of these regulations and any other relevant regulations/guidance can be obtained from your Health and Safety Personnel.

It is the legal responsibility of employees, while at work, to: -

- take reasonable care of their own health and safety and that of others who may be affected by their acts or omissions.
- co-operate with others on health and safety matters.
- not interfere with or misuse anything provided for health, safety or welfare purposes.

Employers and people in control of premises/construction sites have a legal responsibility to provide, so far as reasonably practicable:-

- a place of work that is safe and without risk to health;
- safe systems of work;
- adequate welfare facilities;
- any protective clothing or equipment requires;
- adequate first aid facilities;
- adequate instruction, training and supervision.

There is a legal obligation for employers who share a workplace to co-operate with each other as necessary to enable them to fulfil their statutory health and safety duties. Clearly when working on premises and sites controlled by other employers you must co-operate with them.

If you think that there is a problem affecting your own or your colleagues health or safety you should discuss this with your supervisor or Health and Safety Coordinator.

The control of general site health and safety matters is the responsibility of the principal contractor or site/building occupier. Conviron personnel will normally have no direct legal responsibility for controlling general site safety.

However, as professionals, Conviron personnel have a duty of care to take action where, during a visit to site, that see a situation which a person with their level of knowledge and training ought reasonably to recognise as presenting a risk to the health or safety of people or property.

The action that should be taken in such circumstances will depend upon the seriousness of the situation:

- Your first priority is to ensure that neither you, nor any personnel under your control, are at risk – refuse to enter dangerous areas or carry out dangerous activities.
- Ask individual operatives carrying out unsafe practices to stop, explaining your concerns.
- If you consider the hazard/risk is a serious one then insist that work to be stopped immediately.
- Contact the person in charge of the activity/area explaining your concerns and advising of your action.
- If you consider there is a serious infringement of safe practice or particularly unsafe place of work or if a satisfactory response is not obtained from operatives/supervisors then raise the matter with a senior site manager.

Remember that if you ignore a danger you condone it and share responsibility for any resulting accident. Do not be put off by those who have been doing that way for years, etc. When activities or places of work look unsafe they usually are, and as a professional you must take action.

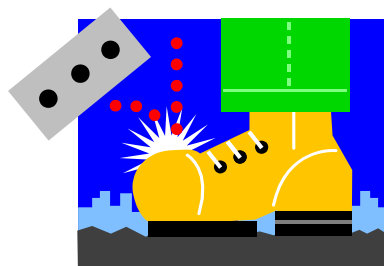
Although every effort should have been made to make a site safe, it is impossible to remove every hazard. Construction sites, workshops and other premises that you may visit can be dangerous places. **You** must therefore protect yourself by using the appropriate protective clothing and equipment.

It is your employer's duty to ensure that necessary equipment and protective clothing is made available for your use, free of charge. It is **your** duty to protect yourself by using it.



SAFETY HELMETS must be worn at all times when out on construction sites or when directed to do so at other sites/premises. You should have been issued with a safety helmet – it is your responsibility to look after it. Helmets should be replaced at the manufacturers recommended intervals, normally every two years. Helmets should be stored properly to Prevent damage and out of direct sunlight, which causes deterioration. No unauthorised stickers or markings should be applied as adhesives, paints, etc. can cause damage. You should check your helmet before using it and ask for a replacement if it is cracked, deeply cut or damaged in any other way.

SAFETY FOOTWEAR must always be worn on site. This should comprise of good quality safety boots or shoes with steel reinforced toecaps and soles to prevent crushing or puncturing by sharp objects. Footwear should also have soles with good grip to prevent slipping.

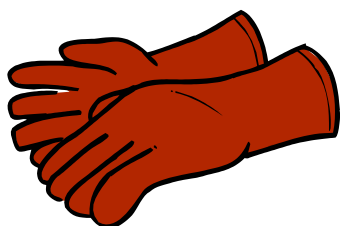
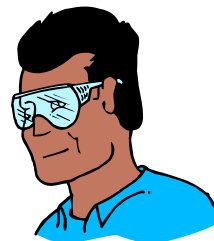


Suitable **PROTECTIVE CLOTHING** should be worn in **wet** or **cold** weather or in **dirty** or **wet** conditions, etc. Reflective vests or jackets are required to be worn at all times while on a construction site, either visiting or working.



NOISE can cause serious damage to your hearing. Regular exposure to noise or a single exposure to excessively loud noise can result in permanent hearing loss. You must therefore wear suitable **ear defenders** or **earplugs** when entering noisy areas.

When there is a risk of **EYE** injury you must wear **safety goggles** or **safety glasses**, this includes working on or near activities which create flying chips particles or dusts; corrosive or irritant chemical splashes from concrete, epoxy resins, etc; welding or hot cutting of metal; etc.



Suitable **GLOVES** must be worn to protect against cuts, abrasions, burns, irritation, dermatitis, vibration white finger, etc; if you need to handle hazardous materials, i.e. wet concrete, materials with sharp edges, chemicals, cold/hot materials, etc; or if working with any vibratory hand tools.

OTHER SPECIALIST EQUIPMENT may be necessary to carry out a task safely, i.e. harnesses and fall arrest equipment, respirators, etc. This equipment must be properly selected, maintained and checked and **before using it you must be properly trained** and have a written safe system of work.

Remember that you are exposed to health and safety risks unless you are wearing the appropriate PPE.

IF IN DOUBT – ASK FOR ADVICE!

Conviron personnel must not use any tools or equipment for which instruction or training is requires unless they have received such instruction or training.

All tools and equipment must be maintained in a safe working condition and, where necessary, tested and certified at recommended intervals.

They must also be inspected before use, including any cables, plugs, hoses, etc.

Records of tests/inspections must be kept.

Appropriate personal protective equipment/clothing, guards, etc. must be used in association with any tools.

Tools must be properly protected whilst being transported and carried. They must not be left lying around to form a tripping hazard for others.

Electric tools must not be operated in wet or damp conditions without appropriate protection systems.

Any cables must be protected to prevent them from being damaged and to avoid causing a tripping hazard for others.

Activities must not be carried out in circumstances where any dust, flying objects, noise, holes, etc. might affect others, unless appropriate precautions are taken to prevent injury or ill-health.

Always report your arrival on site or other premises. You must conform to any formal reporting procedures, i.e. signing the visitor's book, obtaining security passes, etc.

You must familiarise yourself with any site rules imposed by the Client, Contractor or site operator and comply with these rules at all times.

Suitable personal protective equipment/clothing must be worn whilst on site or in other appropriate circumstances.

You must not knowingly expose yourself to any reasonably foreseeable danger. Do not take short cuts. Always make use of the correct access/egress routes, working platforms, etc.

Always obtain authority before entering restricted areas.

Do not indulge in any horseplay, pranks, etc.

Persons under the influence of alcohol or drugs must not go onto site, carry out surveys, inspections or other potentially hazardous activities or operations.

Always sign out when leaving, or someone may put himself or herself at risk looking for you in an emergency.

All places of employment, including construction sites, should have established procedures for dealing with emergencies such as fire or other evacuations and accidents. Make yourself aware of these procedures when you visit sites or other places of work with which you are not familiar.

Take note of where emergency escape routes are located. These should be clearly signed. Note alarm points in case you need to raise an alarm.

Never use lifts as a means of emergency escape.

Always report your safe escape at the relevant assembly point.

All sites/premises should have arrangements in place for preventing and extinguishing fires and for evacuation. This should include hot work procedures, the provision of adequate fire fighting equipment, signage, and formal evacuation procedures and, where necessary, alarms and call points.

Prevention of fires starting in the first place is the best safeguard.

All flammable materials must be stored properly, away from any hazardous processes and have warning signs.

Flammable waste materials must be cleared away and stored safely until removed from site.

No smoking should be allowed in hazardous areas.

All hot working processes, i.e. welding, burning, brazing, tar boilers, etc. should be subject to a permit to work system, especially in existing premises. These permit systems should include ensuring adequate protection of the work area and checks of the work area and its surrounding both during and after completion of the work.

When visiting sites/premises always make yourself aware of your escape routes.

If you see a fire sound the alarm (or shout fire).

If you hear a fire alarm:





- leave the site/building **immediately** by the nearest fire exit route.
- do not use lifts
- go to the assembly point and make sure the responsible person knows you have escaped.
- never return inside until you have been given the all clear.

Before you attempt to put out a fire yourself you must be familiar with and competent to use the different types of fire extinguishers.

If in doubt do not tackle the fire.

If you do tackle a fire always keep yourself between the fire and the escape route – **do not take risks.**

Extinguisher coding's and uses are shown in the following table:

Type of Fire		Type of Extinguisher/Description			
		Water	AFFF Foam	Carbon Dioxide	ABC Dry Powder
Description	BS EN3 Symbol	Red body with red/white label	Red body with cream label or *Cream body	Red body with black label or *Black body	Red body with blue label or *Blue body
Wood, paper textiles, etc. and any other carbonaceous materials		✓	✓	✗	✓
Petrol, oils, fats, paints, etc. and other flammable liquids		✗	✓	✓	✓
Flammable gases		✗	✗	✗	✓
Electrical hazards		✗	✗	✓	✓
Vehicle protection	No symbol	✗	✓	✗	✓

*All new extinguishers will have red bodies – all other body colours are being phased out.

If there is a serious accident or incidents make sure that assistance is called immediately. **Do not put yourself in danger** attempting a rescue.

Do not try to administer first aid unless you are trained to do so. Do not move the injured person unless this is essential to prevent further injury. Ensure that they are able to breathe freely and keep them warm. In the event of bleeding raise the injured part and apply pressure adjacent to the wound. In case of electric shock do not touch the person until the source of power has been turned off. Do not give the injured person anything to drink or eat.

If you are injured call for assistance or, in the case of minor injury, seek first aid treatment from the site/premises first aider.

Employers and persons in control of sites or premises have a statutory duty to record all work related accidents, dangerous occurrences or ill health and to report certain incidents to the statutory authorities. You must assist them by reporting any incidents in which you are involved, or which you witness, as soon as possible.

Report all site incidents to the site manager, as soon as possible.

Report to your Conviron Safety Coordinator, as soon as possible, if:

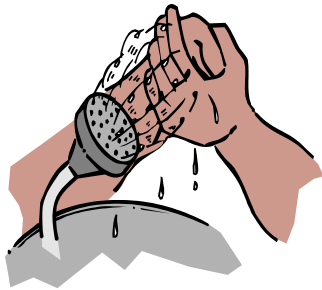
- You, or another Conviron employee, are personally involved in an accident or incident (arrange for someone else to do this if you are unable to report yourself);
- You contact any suspected work related illness

While working on construction sites, in workshops, unoccupied premises, etc. you are likely to come into contact with materials, substances, equipment, etc., which might cause health problems, is sensible precautions are not taken.

You should be alert to the following potential hazards:

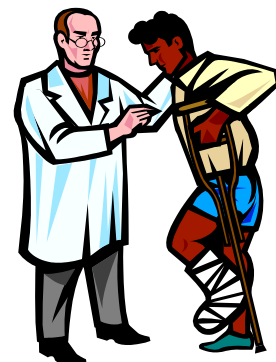
- noise, vibration, temperature, radiation, etc.
- dusts, fumes, gases, vapours, etc.
- toxic, caustic or irritant materials/chemicals, etc.
- bacteria, viruses, infestations, funguses, etc.

Always wear appropriate personal protective equipment and clothing. Check with the Contractor or building occupier to identify any special precautions are needed.



Always wash your hands after a site visit and before eating, drinking and smoking.

Always seek medical treatment for any injuries including cuts, scratches and abrasions.



You should not undertake any work, which entails you working on a site or in the premises alone, without first checking with your supervisor or manager and without following certain rules designed for your safety.

The only way to decide if unaccompanied working is safe is to assess:

- What hazards and risks are associated with the intended task – have these been reduced as far as reasonably practicable?

- Do you have the necessary training/experience to be competent to carry out the required task?

- Do you understand the additional risks of working alone?

- Are there any legal requirements to be accompanied?
work must not be undertaken alone if it involves:
 - entry into confined spaces;
 - work on live electrical equipment;
 - climbing;
 - working over or near water.

- is a second person necessary to assist in the safe execution of any of the tasks? – i.e. working on highways, work in derelict buildings, manual handling, or other high-risk situations etc.

- how long will you be working alone?

- do you know what to do if a health or safety problem arises?

- how far will you have to go to summon assistance in the event of an emergency?

You should ensure that all these factors have been satisfactorily addressed before the work is carried out.

You must also comply with the following rules:

- Before leaving the office you must:-
 - ensure that someone responsible in the office has been designated to monitor your whereabouts until your safe return to the office or other place of safety;
 - ensure that the designated person knows where you are going, when you are going, what you are doing, and how long you will be away for;
 - establish a system for reporting back to the designated person at predetermined regular intervals (determined to suit the nature and location of the activity) and upon returning to the office or reaching any other place of safety if not
 - returning to the office;

- ensure that you take suitable personal protective equipment, access and lighting equipment for the task;

- take a first aid kit;

- ensure that you carry means of communication or raising an alarm if the summoning of local assistance in an emergency may be difficult.

When working alone you must **never take any risks.**

If in doubt – ask for advice!

Serious accidents frequently occur during work in confined spaces. The cause of these incidents is usually lack of oxygen or the build up of toxic, noxious or explosive concentrations of gases, fumes, vapours, dusts, etc.

Confined spaces may include manholes, pipes and sewers, pits and trenches, ducts, tanks and vessels, unventilated basements, bore holes, tunnels, etc. The space does not have to be fully enclosed or small to constitute a confined space or for dangerous atmosphere to be present.

It is essential to adopt safe working practices when it is necessary to enter confined spaces.

A permit to work system should always be in operation. This should set out the precautions to be taken, including:-

- the adoption of a safe system of work with a written method statement;
- measures for the secure removal from service of any associated plant, equipment, etc.
- the monitoring of the atmosphere before entry and continuously throughout the work;
- the emergency escape/rescue procedures and equipment with additional personnel based outside the confined space to monitor the situation at all times;
- the use of appropriate personal protective equipment, including emergency breathing apparatus if necessary, safety harnesses, lighting, communications equipment, etc;
- the use of only trained personnel.

Convion personnel must not enter confined spaces unless:

- it is essential for them to do so; and
- they adopt the above safety precautions; and
- they have been issued with a current permit to work.

Hazardous atmospheres are not restricted to confined spaces. They may occur in any enclosed or partially enclosed space, which is not adequately ventilated, or in which noxious, explosive or other fumes are created by the presence of hazardous materials, substances, processes, etc.

Common problems include:

- the use of solvent based paints and adhesives;
- the build up of exhaust gases;
- hydrogen sulphide build up in manholes or sewers;
- methane gas ingress into trenches;
- refrigerant gas leaks;
- chemical process fumes;
- explosive dust concentrations; etc.

Convion personnel must not enter areas with potentially hazardous atmospheres unless such entry is essential, appropriate PPE is used and/or other suitable precautions are taken. Whenever possible entry should be delayed until the atmosphere has been made safe.

At the first sign of any difficulty in breathing, faintness or lack of physical co-ordination you must evacuate the area immediately.

Special procedures are required for entry into confined spaces (see “confined spaces”).

Falls from height are the most common cause of fatalities on construction.

Suitable safe platforms or access equipment and, if necessary, a safety harness must be used by Conviron personnel. If there are no adequate access platforms with safe, easy access then you must consider very carefully the measures needed to gain safe access.

No, Conviron personnel should work at height if they do not feel confident to do so or if they suffer from any health problems which might affect their ability to do so safely. If in any doubt you should stop and seek advice.

Ladders should only be used if they are on stable foundations and either securely tied or footed. When climbing ladders you must always use both hands to hold on to the ladders, rails, etc. Never over-reach. If you need to carry tools, etc. carry them in tool belts.



A working platform should be 3 scaffold boards wide, with adequate guardrails and toe boards.

You must never gain access to high-level work places using any form of access other than stairs, ladders or hoists erected for the purpose. You must not climb structures or use specialist access equipment, i.e. boson's chairs, cradles, abseiling, etc. unless you have undergone appropriate training **and** have the authority of a Conviron. The Company's insurers must be advised of any specialist access work activities.

Many of the materials and substances used or found in construction can be hazardous to the health of those who come into contact with them. Typical examples are:-

Dusts – cement, gypsum, silica, plaster, brick, wood (particularly hardwood), mineral fibres, mixed dusts (i.e. demolition), etc. Cement is also hazardous when wet.

Fumes & gases – welding, brazing and cutting fumes, hydrogen sulphide (in drains & sewers), carbon monoxide (exhaust fumes), mustard gas coming into contact with naked flame), etc.

Chemical products – solvents (found in paints, adhesives, etc), resin systems, bitumen, pesticides & weed-killers, lubricants, acids, alkalis, PCB's (in electrical equipment), etc.

Existing site contaminants - toxic metals and materials, asbestos, arsenic, phenols, cyanide, tars, etc.

Microbiological risks – legionnaire's disease (from cooling towers, air conditioning plant, etc), tetanus (through cuts, scratches, etc), anthrax/ brucellosis/ leptospirosis (from animal/bird remains droppings or urine), hepatitis B/ HIV infection (from human tissue or body fluids), etc.

These hazards can pose a health risk through skin contact, inhalation or ingestion.

The effects will not necessarily be immediate and may only show themselves after many years.

Convion personnel must not knowingly expose themselves to such hazardous materials or substances unless this is essential to carrying out their work and they use the appropriate protective clothing, equipment and safe systems of work.

The control of most hazardous materials and substances is dealt with under the Hazardous Materials Information Review Act (HMIRA), although some substances such as asbestos, lead, etc, have their own regulations.

Under these regulations the person in control of the site/ premises where there are known to be any hazardous materials or substances, or employers/ contractors who have been advised that the presence of such materials or substances are reasonably foreseeable, is required to :

- **carry out risk assessments;**
- **eliminate the hazard or provide any necessary control measures;**
- **inform, instruct and train personnel;**
- **monitor the effectiveness of controls;**
- **keep records**

Hazardous materials and substances must not be disturbed where this would cause a wider dispersal of the hazard (i.e. dust, spray, etc,) unless measures are in place to guard against such dispersal and protect workers and other occupiers of the site.

Packages/ containers of hazardous, materials should have warning labels, which may include one or more of the following symbols

GHS Pictograms



Electrical hazards can occur in respect of:

- existing building services;
- partially energised new installations;
- overhead power lines;
- buried services;
- temporary site electrics;
- portable electrical tools;

There is no safe voltage. Even minor shocks can startle and cause falls, etc. leading to more severe injury. All electrical equipment must be considered as potentially dangerous.

Convion personnel must never work on live services. Work on live services should not be allowed except where there are no practicable alternatives and then only when appropriate stringent control measures are adopted.

The location of all overhead and underground cables must be thoroughly investigated and checked. These services must be thoroughly investigated and checked. These services must be avoided, disconnected, protected, or otherwise made safe, when carrying out any work. Advance planning is essential, particularly if the work involves any demolition, dismantling, stripping out, excavation, use of large plant etc.

In the event of electric shock, turn off the power immediately. If this is not possible, do not touch the victim – use rubber, wood, cloth, folded newspaper (all of which must be dry) and try to break the contact.

The management and maintenance of suitable access/ egress and site tidiness is an important element of ensuring a safe site.

Suitable access and emergency escape routes must be maintained for personnel. It is essential that all pedestrian and vehicular routes are kept clear of obstructions at all times.

You must make sure that you do not do or condone anything, which might block an access or escape route.

Wherever it is reasonably practicable pedestrian and vehicular traffic routes should be kept separate. Where this is not practicable then suitable signs, barriers and refuges should be in place to warn of the hazards and provide protection.

Always follow designated routes and avoid short cuts – it may be a short cut to an accident.

Adequate lighting should be provided for all access and escape routes as well as work areas.

All materials should be stacked in designated areas and all rubbish, surplus materials cleared away as soon as possible. All potential slipping/ tripping hazards should be cleaned up as soon as possible and sharp objects removed or protected.

Always remain alert and watch your step looking out for any slippery surfaces, trip hazards, projecting nails, etc. If you see any such hazards remove them yourself if you can do so easily without risk to yourself. If not report them.

If you see any problems you should report these to the site management.

When hot work operations such as brazing, soldering, welding etc, are to be carried out, it is essential that adequate precautions be taken, including:

- ***use of a permit to work system;***
- ***provision of suitable/ readily accessible fire extinguishers;***
- ***means of raising an alarm;***
- ***establishing emergency evacuation procedures and communicating these to everyone on site or in the premises;***
- ***consulting all occupiers of premises;***
- ***moving or protecting flammable materials, gas bottles, etc;***
- ***checking the area around the work area periodically for up to two hours after completion.***

Keep well away from cutting or welding operations.

Do not touch any materials, they remain hot for a long time.

Barriers must be erected and warning signs displayed to protect passers-by during welding or weld resting. Face shields for protection against arc-eye must be worn by welders and by anyone watching welding operations.

All compressed fuels and gases are dangerous if not handled correctly. The transport and storage of all gas cylinders is subject to Statutory Regulations. Liquefied petroleum gas (propane and butane) is heavier than air and any leakage will accumulate at low levels. Oxygen cylinders must be stored separately from combustible gas cylinders.

Wherever possible mechanical handling equipment should be used in place of manual handling.

Where manual handling is essential then assessments should have been carried out under the Manual Handling Regulations to ensure that the risks of injury have been reduced to an acceptable level. Assessments for manual handling should consider, amongst other things – weight, size, shape, surface conditions, sharp edges, position of lifting/ lowering, distance, capabilities of individuals etc.

Convion personnel must never lift large, heavy or awkward items unless an assessment has been carried out. If you do not need to handle loads then adopt the following guidelines:

- ensure that the size/ weight is within your lifting capacity;
- get help where necessary;
- bend your knees;
- keep your back straight and your chin in;
- grip the load firmly with your full fingers;
- lift by straightening your legs and keeping your back straight;
- keep load close to your body;
- bend your knees to lower the load;
- avoid trapping your fingers.



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If in doubt seek advice.

Hand and Portable Power Tools (General)

Hand and power tools are used extensively in construction work and can be the cause of personal bodily injury, if not used as designed and in a safe manner. Tools must be appropriate for the task, properly maintained, and equipped with all necessary guards and safety devices.

**DO**

- Choose a tool that is appropriate for the task.
- Wear all appropriate Personal Protective Equipment.
- Inspect the tool before use to ensure it is in safe working condition.
- Ensure all tool guards are in place.
- Use tools designed to allow wrist to stay straight. Avoid using hand tools with your wrist bent.

**DO NOT**

- **DO NOT** Use a tool for any other purpose than what it was designed to do.
- **DO NOT** Use a worn or damaged tool.
- **DO NOT** Use a tool without all guards in place.
- **DO NOT** Use a tool without wearing proper PPE.
- **DO NOT** Apply excessive force or pressure on tools.
- **DO NOT** Do not carry a sharp tool in your pocket.
- **DO NOT** Do not cut towards yourself when using cutting tools.

General Safe Work Practices

1. Choose the most appropriate tool for the task.
2. Inspect the tool and ensure it is in good operating condition and is equipped with all guards. Tag defective equipment clearly with a "Warning Do not use Tag" then Lock it Out and see your supervisor immediately.
3. Ensure you are familiar with the safe operating procedures and any limitations on the use of the tool.
4. Ensure no one in the surrounding area will be put at risk when you are using the tool.
5. Keep cutting tools sharp and cover sharp edges with suitable covering to protect the tool and to prevent injuries from unintended contact.
6. Replace cracked, splintered, or broken handles on files, hammers, screwdrivers, or sledges.
7. Replace worn jaws on wrenches, pipe tools and pliers.
8. Keep the work environment clean and tidy to avoid clutter which may cause accidents.

Working with Ladders

General Safe Work Practices

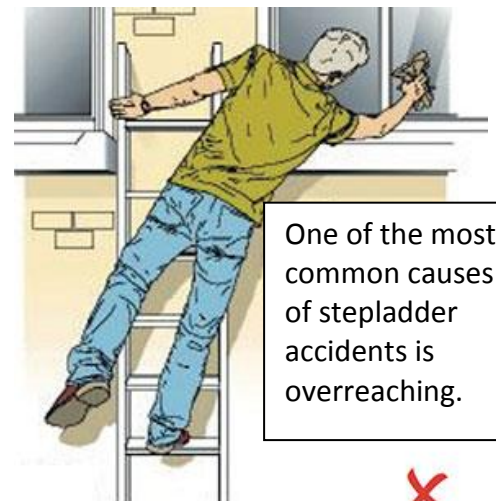
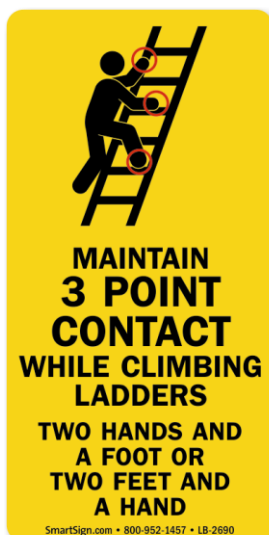
1. Inspect the ladder to ensure no bent or damaged steps/rungs or side rails and that all parts are in working order. **Inform your supervisor immediately if a ladder is damaged.**
2. Have another worker assist with carrying and placing the ladder in position.
3. Before mounting a ladder, clean the boot soles if they are muddy or slippery.
4. Once the ladder is secured and placed at the correct elevation and angle, face the ladder and climb using the 3 point contact rule at all times. (Tools and materials should not be carried, but hoisted separately once in a safe position).

**DO**

- Inspect the ladder before every use
- Place the ladder on a firm level surface
- Face the ladder when climbing up or down
- Select a ladder that is the correct height and type for the job
- Keep your body within the rails of the ladder while working on it
- Keep rungs free of slippery materials such as oil, grease, water and paper

**DO NOT**

- **Do not** use a worn or damaged ladder
- **Do not** place a ladder near overhead hazards (e.g. electrical wires)
- **Do not** carry tools and materials on ladders
- **Do not** lean-out on a ladder
- **Do not** leave a ladder unattended for extended periods or overnight
- **Do not** stand or sit on the top two steps of the ladder



Electrical Cords, Tools and Equipment

1. Inspect power cords and plugs daily, and discard if worn or damaged. Do not use light duty power cords. Have any cord that feels more than comfortably warm checked by an electrician.
2. Do not tie power cords in knots. Knots can cause short circuits and shocks. Loop the cords or use a twist-lock plug.
3. Eliminate octopus connections – do not plug several power cords into one outlet.
4. Pull the plug, not the cord. Pulling the cord causes wear and may cause a shock. Ensure hands are dry.
5. Never break off the third prong on a plug. Replace broken three-prong plugs and make sure the third prong is properly grounded.
6. Keep power cords away from heat, water and oil. These substances can damage the insulation and cause a shock.
7. Do not allow forklifts to pass over unprotected power cords. Cords should be put in conduit or protected by placing planks alongside them.
8. Handle all wires at all times as though they are energized.
9. Never use extension cords as permanent wiring. Use extension cords only to temporarily supply power to an area that does not have a power outlet.
10. Follow lock-out/tag-out procedures when isolating equipment.
11. Do not wear loose gloves, clothing or jewelry while using revolving power tools. Long hair should be tied back.
12. Make sure tools are switched off before connecting to a power supply, and disconnect power supply before making any adjustments, changing accessories or storing a tool.
13. Make sure all tools are properly grounded or double-insulated. The grounded tool must have an approved 3-wire cord with a 3-prong plug. This plug should be plugged into a properly grounded 3-pole outlet.
14. Do not bypass the switch and operate the tool by connecting and disconnecting the power cord. Never carry electrical tools by the power cord.
15. Do not clean tools with flammable or toxic solvents, and do not operate tools in an area containing explosive vapors or gases.
16. Replace open-front plugs with dead-front plugs. Dead –front plugs are sealed and present less danger of shock or short circuit.

Pneumatic Tool Safety



- Review the manufacturer's instruction before using a tool.
- **MUST** wear safety glasses or goggles, or a face shield where necessary. Eye protection is required when handling or in the vicinity of pneumatic tools.
- Compressed air guns should never be pointed toward anyone; pressurized air alone may puncture skin. Operator should never "dead-end" them against themselves or anyone else.
- Keep tools clean, lubricated, and maintained according to the manufacturer's instructions. Frequent lubrication is required for proper function of the tool (do not fill with more oil than required).
- Check hoses regularly for cuts, bulges, and abrasions. If defective, tag and clearly mark "out of use", inform supervisor for repair or replacement.
- Make sure that hose connections fit properly and quick disconnect are not leaking pressure.
- Avoid creating trip hazards caused by hoses laid across walkways or curled underfoot.
- Disconnect a pneumatic tool when not in use or when walking away from the work station.
- Do not carry a pneumatic tool by its hose.
- Hearing protection must be worn when in operation.
- Do not use compressed air to blow debris from clothes or self.
- **Cleaning with compressed air is dangerous. Flying debris may cause irritation or injury to eyes or may be a choking hazard if inhaled.**

As an alternative, use a shop vac or pneumatic vac when needed

Eliminating Tripping Hazards



Many fall injuries occur on level ground when people trip over unexpected objects in their path. Help eliminate trip hazards by following these do's and don'ts.

**DO**

- Keep work areas neat and tidy, putting tools, materials, and other items away after use, not at the end of your shift.
- Roll up your cords or cables immediately after you use them.
- Walk around obstructions, not on or over them.
- Walk slowly and change directions slowly, especially when carrying a load.
- Shuffle feet on slippery surfaces.
- Report lighting problems, such as burned-out bulbs, to your supervisor right away.
- Report uneven, defective flooring to your supervisor.
- Pick up items from the floor even if you didn't put them there.

**DO NOT**

- Don't leave cords or cables across walkways.
- Don't block walkways with equipment, or materials.
- Don't leave boxes, bags, tools, or other materials on the floor.

**KEEP AN EYE OUT FOR
TRIPPING HAZARDS**



BEFORE THEY FLOOR YOU

You don't have to fall from a great height to get injured. Workplace fall injuries occur on level ground when employees trip over unexpected objects in their path.

Slips, trips and falls account for 20% of minor injuries in workplaces, such as sprains and strains, as well as cuts, bruises, fractures and dislocations. However, they can also cause very serious injuries, mostly to the ankle, knee or back, leaving employees with long-term problems, which can significantly affect their quality of life.

Falls from relatively low heights have been known to leave employees with brain damage and in a few cases have resulted in death.