# The pocket guide to construction safety

For small construction businesses and subcontractors





# About this guide

The construction industry is one of NSW's highest risk industries. Every year, too many workers are killed or injured on NSW construction sites.

The most common causes of serious injury or death on construction sites are:

- falls from heights
- contact with electricity
- being hit by falling objects
- moving plant.

This guide provides useful information for common health and safety issues on small construction sites relevant to New South Wales WHS laws. It will help you manage the health and safety of workers and others on and around your worksite. Links to more detailed information are included where relevant.

### **ACKNOWLEDGEMENTS**

After the devastating earthquakes that struck Christchurch in 2011, SafeWork NSW Inspectors provided on-the-ground assistance to help rebuild Christchurch safely. The New Zealand Absolutely Essential Health and Safety Toolkit was recognised by industry and the Inspectorate alike as a useful tool to assist small builders comply with safety requirements. Their pocket toolkit inspired NSW to develop this Pocket Guide to Construction Safety.

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# **QR** Code instructions

In this guide you will find a number of QR codes which will direct you to further information.

To use the QR code you must download a QR reader application to your mobile device. Free apps are available on the App Store (iOS) or Google Play Store (Android).





Once you have downloaded the QR reader, open it and scan the QR code on the page. This will open the document where you can find further information, videos, publications, etc.



# Contact SafeWork NSW

### Contact us on 13 10 50.

People with a speech or hearing impairment can make or take phone calls using the following:

- For voice calls or telephone typewriter (TTY) call 133 677 then ask for 13 10 50.
- For a speak and listen service call 1300 555 727 then ask for 13 10 50.
- For an SMS relay service call 0423 677 767 then type 13 10 50.
- Speak Up Safe Lives app





### Notifying us of an incident

If there is a serious injury or illness, a death or a dangerous incident, you must report it to us immediately on 13 10 50 as an urgent investigation might be needed.

Incidents can be notified 24 hours a day, 7 days a week.

#### More contact information



Make an internet relay call then type 13 10 50



Speak up saves lives app

# General information and resources for construction sites

Access the SafeWork NSW Building and Construction webpage via the QR Code link below. The webpage provides useful information and material including fact sheets, guides, videos, toolbox talks, checklists and podcasts.



### View



Building and construction SafeWork NSW



SafeWork NSW website www.safework.nsw.gov.au

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# Management Checklists

This chapter provides questions relating to management activities required to meet your Work Health and Safety obligations.

If you answer yes to the questions, you are on your way towards achieving compliance.

# Preparing for emergencies

- ☐ Are there emergency procedures?
- Do people on site know what the procedures are and where the nearest medical centre/hospital is?
- ☐ Is there a means of raising the alarm and does it work?



- Is there a way to contact the emergency services from site?
- Are there enough suitable escape routes and are these kept clear?
- ☐ Is there a stocked first aid kit kept on site?
- Is there someone available who can administer first aid if needed?

### More information on emergency procedures



Code of Practice: Managing the work environment and facilities



Code of Practice: First aid in the workplace

# General management

As an employer or business owner, do you make sure your workers:

- hold a General Construction Induction training card ("white card")?
- are inducted to the site?
- are trained, competent and fit to do the job safely and without putting their own or others' health and safety at risk?
- have adequate supervision and are given clear instructions?
- □ have access to hand washing and toilet facilities?
- have the correct tools, equipment, plant and protective clothing to do the task safely?
- are involved in discussions or toolbox talks about health and safety issues?
- are covered by your workers compensation insurance policy?



# Contracting and subcontracting

If you are a principal contractor, or a contractor who subcontracts work to others, do you:

- check the health and safety performance of the people you plan to work with?
- check that their workers compensation is current and has a sufficient level of coverage?
- give them the health and safety information they need for the work?
- collect and review their Safe Work Method Statements for High Risk Construction Work and discuss safety prior to commencing?
- hold regular discussions about how the work is going, including safety problems and concerns?
- make sure that you have provided everything you are required to (such as safe scaffolds, the appropriate plant, access to toilets and other amenities)?



- monitor subcontractors' performance and record any non-conformances and corrective actions taken?
- ensure that the principal contractor has prepared a WHS management plan (if the construction work costs more than \$250.000) and reviewed it?

The Code of Practice for Construction Work is a practical guide to achieving work health and safety requirements under the WHS Act and Regulations.



It contains specific information and templates relating to:

- safe work method statements
- · work health and safety management plans
- induction requirements.

The Housing industry Site Safety pack provides the templates and framework for a WHS system to assist small subcontractors (0-10 workers).

### More information



Code of practice for Construction Work



Housing industry Site Safety pack

# Consultation and toolbox talks

Consultation gives your workers the opportunity to participate and share information about health and safety at work.

#### Have you discussed:

- the method of consultation to adopt on the project such as committee, HSR's or other agreed arrangements?
- the risks associated with the task they are about to perform?
- proposing changes that may affect the work health and safety of workers?
- making decisions about any work health and safety procedures?
- the adequacy of facilities for the welfare of workers?



### More information



See the Code of Practice: Work health and safety consultation, coordination and cooperation

# Hazards checklist

This chapter provides questions to help you manage the hazards and risks on site.

If you answer yes to the questions, you are on your way towards achieving compliance.

# Working at heights

WARNING: Extreme care should be exercised for any work on roofs, scaffolding and/or ladders.

- □ Have you planned the work properly and identified suitable precautions to make sure work can be carried out safely? (Precautions include safe access, management of hazards such as brittle roof, open voids, unprotected edges, adverse weather conditions and site conditions)
- Can you avoid working at heights by conducting work from the ground?
- ☐ If you can't work from the ground, have you ensured fall prevention equipment is used such as scaffold, guard rails or an elevating work platform?
- Have you ensured there is appropriate training and fit-for-purpose controls to prevent workers from falling from heights?

#### More information



Managing the risk of falls at workplaces



Managing the risk of falls in housing construction

# Scaffolds



- ☐ Is the scaffold erected, altered and dismantled only by licensed scaffolders? (A high risk work (HRW) licence is required where a person can fall more than 4 m)
- Have you told unlicenced workers they must not alter the scaffold and advised them on how to arrange alteration if they need access?
- Is the scaffold erected using safe work methods and in accordance with the supplier's and/or manufacturer's instructions and relevant Australian Standards?
- Has written confirmation (e.g, a hand-over certificate) been provided to verify the scaffold is complete, safe and compliant?
- Has a competent person inspected the scaffold before first use, after an incident that could affect the stability, after repairs and at least every 30 days?
- Are all standards provided with base plates and, where necessary, timber sole-boards?
- Is the scaffold adequately braced?

- Is the scaffold adequately secured to the building or structure to prevent collapse?
- Are there handrails, mid-rails and toe boards (or other suitable protection) at every edge to prevent people and objects from falling?
- Are guards provided to prevent stacked materials such as bricks falling from scaffolds (e.g., such as kickboards, brick guards or steel mesh)?
- Are the working platforms fully planked and are the planks arranged to avoid slipping or tripping?
- Are there effective barriers or warning notices in place to stop people from using an incomplete scaffold?
- Has the scaffold been designed to carry the weight of people and materials stored on it, and are these evenly distributed?
- Are gates (including guardrails being used as gates) and hatches across access points self-closing?
- Is the gap between the building/structure and the scaffold less than 225 mm?
- Are scaffolds at least 4 m from powerlines? If not, have you consulted with the service provider?
- Are the wheels of mobile scaffolds locked when in use and are the platforms cleared before they are moved?
- Are outriggers on mobile scaffolds in place and secure?





# Stairways and voids



- Are all voids protected by covers that are secured in place and clearly marked as voids?
- Are all stairways and/or ladder access points protected against falls risks by the installation of fences and/or barriers?

#### Online videos

See how to prevent falls using simple void protection



Temporary stairs



Void cover

# Ladders

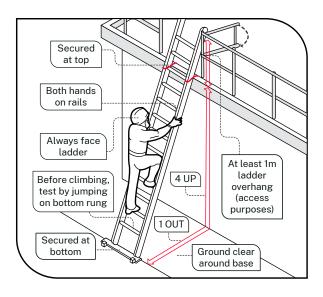
- Choose the right tool for the job can you buy or hire some alternative equipment that would provide a safer means of access (such as mobile scaffold, elevated work platform or platform ladder)?
- ☐ Is the ladder in good condition and industrial rated (120kg)?
- ☐ Is the ladder set up on a flat, stable surface?
- Do you need ladder safety devices like leg levellers, anti-slip gutter guards and stabilisers?
- Is the ladder high enough so that users don't have to over-reach?
- Are materials being transported safely (i.e, not carried up a ladder)? Use a pulley or rope and bucket system instead.

### **Extension ladders**

- ☐ Is the ladder secured at the top and bottom to prevent it slipping sideways and outwards? If this isn't possible, have someone hold it in place while in use.
- □ Does it extend at least 1 m above the landing place?
- Is it resting against a solid surface that can support it and you?
- ☐ Is it angled at a ratio of 1:4 (the base of the ladder 1 m away from the structure for every 4 m of height)?

### A-frame style step ladders

- Is the ladder tall enough so that users don't have to stand on the top two rungs? If not, a taller ladder is required.
- Are all four feet of the ladder in contact with the ground, and are the locking devices secured?
- Are both feet and one other point of contact e.g., hand, waist or torso, in contact with the ladder? If not, you need a taller ladder or a safer piece of equipment.



# Roofs



- $\hfill\Box$  Has an exclusion zone been set up below the roof work?
- Are roof workers trained and experienced to recognise the risks and are they competent to do the work?

### Roofs under construction

- Is there temporary edge protection, such as scaffold or safety rails, to stop people or materials falling?
- Have you considered netting or other fall prevention devices?

#### Work on roofs

- ☐ Has the angle/pitch of the roof been considered when determining fall prevention measures?
- Have you identified fragile or brittle roof materials that are not safe to walk on, such as concrete tiles, cement sheets, asbestos or clear plastic sheeting and sky lights?

- Have you installed temporary edge protection to stop workers falling from the edge of the roof, such as scaffold, roof rails, or an elevating work platform (EWP)?
- Have you installed protections to stop people falling through fragile or brittle roofs, such as guard rails, covers, walkways/crawl boards, exclusion zones?

### Work positioning systems (harnesses)

**Note:** Work positioning systems can only be used if it is not reasonably practicable to provide physical edge protection.

Harnesses require the correct design, set up and user behaviour to ensure its effectiveness.

Total restraint technique is preferred over fall arrest, as it stops the user from reaching the edge or fall hazard.

Fall arrest systems must only be used as a last resort, and cannot be safely used on a single storey building.

- Are workers trained and competent in the setting up and safe use of harnesses if required?
- Has an emergency heights rescue plan been developed for harness-based work?

# Electricity and essential services



- Have you contacted Dial Before You Dig to identify and assess underground services?
- □ For underground services, have you planned, prepared and potholed before proceeding?
- □ Have you clearly identified, marked and/or isolated existing services present on site (above and below ground, such as electric cables, gas mains, water mains and phone lines)?
- Where there are overhead powerlines, has the service provider been contacted?

- Where there are overhead lines, has the electricity supply been turned off, or have other precautions been taken, such as providing 'tiger tails', 'goal posts' or taped markers and/or barriers as an identifier to prevent inadvertent contact?
- □ For electrical tools on site, is a Residual Current Device (RCD) or Isolating Transformer used and tested?
- Are tools and equipment well-maintained, checked regularly for defects and taken out of service if a defect is found?
- Are temporary switchboards, tools and electrical items regularly inspected, tested and tagged by a competent person?
- Are cables and leads protected from being damaged or creating trip hazards?
- □ Is the switchboard easily accessible?

### More information



Managing electrical risks in the workplace



Working in the vicinity of overhead and underground electric lines

# Traffic, vehicles and mobile plant

- Are vehicles and pedestrians physically separated by barriers, markings and/or signage?
- If required, has a qualified person developed a traffic control plan?
- ☐ Do the traffic controllers hold the correct qualification?
- Can reversing be avoided? If not, are properly trained spotters used?
- □ Have operators received proper training/licences and are they competent and fit to use vehicles or plant?



- Have mobile plant prestart checks been done and any issues addressed?
- Do the operators of mobile cranes hold the relevant high risk work licence?
- ☐ Has a verification of competency (VOC) been conducted?
- Are work vehicles well-maintained and maintenance records present and up-to-date?
- If you need to work on or drive across sloping ground, have you checked that the plant and vehicles are safe to use?
- Do you always check that securing pins are in place on the excavator for semi-automatic quick hitches?
- Are all safety attachments and devices in place and working?
- Has a geotechnical report been obtained to confirm the ground can take the load?

#### More information



Managing the risks of plant in the workplace



Moving plant on construction sites code of practice

# Site security and protecting the public

- Have you provided adequate site fencing to prevent unauthorised access to your site?
- Is your site fencing secured adequately to prevent collapse in high winds?
- Have you provided site signage with the principal contractor's name, 24 hr contact number and site office location?
- Is a fire-retardant mesh/fabric required to prevent the spread of materials, dust and debris outside the site?
- ☐ Is the public protected from falling materials?

### When work has stopped for the day:

- Is the boundary fence secure?
- ☐ Have warning entry signs to prevent unauthorised access been erected?
- Have steps been taken to prevent any unauthorised access, (such as removing ladders)?
- Are excavations and openings securely covered or fenced off?
- Is all plant immobilised to prevent unauthorised use?
- Are bricks and materials safely stacked?
- Are flammable or dangerous substances locked away in secure storage places?



# Walkways, access and egress

- Can everyone get to their place of work safely and work there safely?
- Are access routes well defined, in good condition and clear of debris and materials?
- ☐ Has suitable edge protection been installed?
- Are voids protected and clearly marked with fixed covers to prevent falls?
- Is the site tidy and are materials segregated and stored safely?
- Is there sufficient lighting for access and egress purposes and for people to perform their work safely?



# Trenches and excavations

- Have you obtained and kept copies of current underground essential services information (location and depth) relating to the workplace and adjacent areas by contacting Before you Dig Australia?
- Have you planned, prepared and potholed before proceeding?
- Are trenches/excavations secured to prevent unauthorised access, falls and falling objects?
- Is there a support system in place to prevent collapse such as shoring, benching or battering?
- Is a safe method used for putting in the support without people working in an unsupported trench?
- Is there safe access and egress to and from the excavation?
- ☐ Is the excavation fenced off from unauthorised access?
- Could the excavation affect the stability of neighbouring structures or services?
- Are materials, spoil and mobile plant kept away to prevent loading and potential collapse of the edge of the excavation?
- Is the excavation regularly inspected by a competent person, such as a geotechnical engineer?
- Are the results of inspections recorded and communicated to workers?

### More information



See the guide to working near underground assets

# Loading and unloading materials

- Have you planned your method of loading/unloading materials?
- Is there an exclusion zone around the loading/unloading area?
- Do mechanical aids and other lifting equipment have a current certification and are they well maintained?
- Before removing straps/stabilisers, have you checked that the load has not moved or destabilised during the journey?
- Do you have to access the back of the vehicle or truck bed to avoid work at heights, or can the preparation work be done from ground level?
- Do operators of vehicle loading cranes with a capacity of 10 metre tonnes or more hold a high risk work licence?
- Do operators of personnel and/or material hoists hold the appropriate high risk work licence?



# Hazardous manual tasks

Where possible, can you eliminate or reduce:

- □ repetitive or sustained force/movement?
- high or sudden forces?
- sustained or awkward postures?
- exposure to vibrations?
- the nature, size, weight and number of objects handled?
- In your planning, have you considered the work area layout, systems of work and the work environment?

### Can you:

- choose lighter materials?
- use fit-for-purpose mechanical aids such as cranes, hoists, trollevs?
- □ buy ergonomically designed tools and equipment?
- provide suitable information, training and instruction for safe use of mechanical aids and other equipment?

### More information



SafeWork Code of Practice: Hazardous manual tasks Note: Administrative controls such as training in lifting techniques is the least effective way in managing musculoskeletal disorders and cannot be used as the only control to manage the risk.

# Tools and machinery

- Are the right tools or machinery being used for the job and in accordance with manufacturer's specifications?
- ☐ Are you complying with the manufacturer's guidelines for inspections, maintenance and repairs?
- ☐ Are all moving parts guarded?
- Are guards adequately secured and in good working order?
- Are tools and machinery maintained in good condition and are all safety devices operating as per their intended use?
- ☐ Are all operators trained and competent?



# Health hazard checklist

This section provides questions to help you manage the hazards and risks on site.

If you answer yes to the questions, you are on your way towards achieving compliance.

# Sun safety, workloads and fatigue

- □ Have you provided sunscreen?
- Can you organise the work to reduce exposure to the sun during peak UV radiation times?
- ☐ Is there shade/shelter available on site?
- Are workers using a combination of sun protection measures, such as sunscreen, long sleeves, long pants, collared shirts, wide brimmed hats or legionnaire caps and UV-rated wraparound sunglasses?
- Is there drinking water available on site and suitable breaks to encourage workers to stay hydrated?
- Can heavy physical work be scheduled to cooler times of the day?
- Is work scheduled to allow enough time for completion without rushing?
- Are workloads practical and manageable, with consideration given to any workflow changes such as machinery breakdowns or unplanned absences?
- Is fit-for-purpose plant, machinery and equipment used to reduce physical workloads?



## **Asbestos**

- Have you identified the materials you are working with? (Properties built before 1990 are likely to contain asbestos material)
- Have you engaged a licensed/qualified asbestos removalist?
- Have they provided you with a copy of their asbestos removal control plan, including their safe work method statement?
- □ For licensed work, after the work is completed, have they provided you with an asbestos clearance certificate issued by a licensed asbestos assessor or an independent competent person?
- Has SafeWork NSW been notified 5 days prior to the asbestos removal work?
- Has the asbestos been disposed of appropriately to a licensed landfill?





### More information



How to manage and control asbestos in the workplace



How to safely remove asbestos



Asbestos Licence Checker

# Silica

- Have you identified work activities that generate airborne silica dust?
- Can you eliminate silica dust exposure by using other products that do not contain silica?
- Can you isolate silica dust exposure by limiting work to an enclosed or segregated area?
- Can you substitute silica containing products with materials containing less silica or no silica in them?
- Can the silica dust be managed through engineering controls such as using dust capture systems, or water suppression systems on tools and equipment and using H or M class vacuums for safe clean up?
- Do you have administrative controls in place to assist in the management of silica dust exposure such as the use of work procedures, signage, information, training and supervision?
- Have you provided appropriate Personal Protective Equipment (PPE), to assist in the management of silica dust exposure such as respiratory protective equipment (RPE)? For example face masks with a P2 rating minimum?
- Have you identified the need for a health monitoring program for workers?
- Have workers been consulted on the hazards associated with silica dust, and have the safety control measures been communicated and understood?

### More information



Crystalline Silica resource page

**Note:** You may have specific legislative requirements when working with silica.

See the Crystalline Silica resource page for more information.

# Amenities and facilities

- Have suitable hygienic toilet facilities been provided?
- Is there clean hand washing facilities, water, soap and paper towel provided?
- Is wet-weather clothing provided for those working in wet conditions?
- Is there a place where workers can take shelter and eat meals? Do they have access to clean drinking water?
- ☐ Is there a suitable fully stocked first-aid kit?





### More information



Code of Practice: Managing the work environment and facilities



Code of Practice: First aid in the workplace

# Hazardous chemicals

example lead, solvents, paints?
Is there a register that lists all the hazardous chemicals (except certain consumer products) used, stored and handled at your workplace?
Do you have a current safety data sheet for any hazardous chemicals used?
Have you identified and implemented control measures to prevent or control exposure to hazardous chemicals and substances by:
doing the work in a different way, to remove the risk entirely?
☐ using a less hazardous material?
☐ using tools fitted with extraction devices?
using tools fitted with water suppression?
☐ using forced air ventilation?
installing warning signs to show where work involving hazardous substances is taking place?
Have workers received information and training so they know what the risks are and what they need to do to avoid those risks?
Is personal protective equipment (PPE), respiratory protective equipment (RPE) and any other safety equipment provided?

 Do you have procedures and PPE to prevent contact with wet cement (this can cause dermatitis and cement burns)?

☐ Have you identified harmful chemicals and substances for

- Have you have arranged health monitoring for employees exposed to certain hazardous substances such as asbestos, lead, silica, cement, sensitisers such as twopack adhesives or coatings?
- ☐ Are there adequate wash facilities available?
- Are hazardous chemicals stored and disposed of appropriately?
- ☐ Has a spill kit been provided?

### More information



Managing risks of hazardous chemicals in the workplace



## Noise

- Have you identified and assessed workers' exposure to noise level and duration?
- Can the noise be reduced by using different working methods or selecting quieter plant, (such as fitting breakers and other plant or machinery with silencers)?
- Have workers had information and training so they know how to avoid those hazards and risks?
- Are people not involved in the work kept away from the source of the noise?
- Is suitable hearing protection provided and worn in noisy areas?
- Have hearing protection zones been identified and signed appropriately?
- Have you provided audiometric testing (including base line testing) for employees exposed to high levels of noise?

### More information



Managing noise and preventing hearing loss at work



Controlling hazardous noise in the construction industry

# Personal protective equipment

- Is suitable personal protective equipment (PPE) provided to protect the worker for the tasks they are performing? This may include hard hats, safety shoes, hand, eye and ear protection.
- Have workers been trained in the safe use, care and storage of protective equipment?
- Do workers wear their protective equipment, and do they wear it correctly so that it fits?



# Mental health action plan



This action plan provides practical steps in supporting mental health onsite.

#### Know the signs of mental ill-health and act early

Changes in mood, behaviour, performance or appearance can be a sign someone needs support with their mental health. They may be frequently absent from work or not performing to their usual standard.

#### Start a conversation

Have a private conversation about the changes you've noticed, at a time and place that suits you both. If they do not want to talk, let them know they can come to you for support when they're ready.

#### Connect to support

Let them know that it's OK to not be OK. Encourage them to contact support services or contact them together, if they need it.

### Plan and make changes

Offer workplace adjustments, such as days/hours worked or reduce workload. Make sure the work environment is safe. Communicate and model acceptable behaviour at work.

### Stay connected

Stay in touch regularly, whether off or back at work. Review how their recovery is going and make further changes to their work as needed.

For more information and resources on promoting, managing and supporting workplace mental health and your duties go to:



## Disclaimer

This publication may contain information about the regulation and enforcement of work health and safety in NSW. It may include some of your obligations under some of the legislation that SafeWork NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.

Information on the latest laws can be checked by visiting the NSW legislation website www.legislation.nsw.gov.au

This publication does not represent a comprehensive statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

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### More information



Work Health and Safety Regulation 2017



SafeWork legislation website



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