



Select, check and maintain concreting plant, tools and equipment

CPCCCO2022



SAFE WORK METHOD STATEMENTS (SWMS)

- Safe work method statements (SWMS) assist a PCBU to consider how certain activities will be carried out safely. The following should be noted:
- SWMS must be easy to understand, signed and dated;
- SWMS must be amended if there is a change in the activity and a copy must be given to the principal contactor;
- All persons affected by changes must be advised of amendments to the work method statement.

JOB SAFETY ANALYSIS (JSA)

- A job safety analysis is a procedure which helps integrate accepted safety and health principles and practices into a particular task or job operation. In a JSA, each basic step of the job is to identify potential hazards and to recommend the safest way to do the job.
- Identifies hazards and potential hazards that may be encountered while working.

WORK INSTRUCTIONS

- **Work Instructions** are documents that clearly and precisely describe the correct way to perform certain tasks that may cause inconvenience or damage if not done in the established manner. That is, describe, dictate or stipulate the steps that must be followed to correctly perform any specific activity or **work**.

TRAFFIC CONTROL PLAN (TCP)

- **Traffic control plans** (TCP's) are detailed drawings that show the layout of temporary road signs and devices to warn and guide **traffic** past, around and through the work site safely. A TCP is part of a work health and safety (WHS) requirement of a worksite
- Outline requirements for site isolation and signage for vehicles.

EMERGENCY PROCEDURES

- Even if control measures have been put in place, a leak, spill or uncontrolled release of a hazardous chemical may still occur. Emergency procedures should be established, and used, if appropriate, to enable the source of a release to be safely identified and repairs to be made. All persons not directly concerned with the emergency should be excluded from the area of contamination.
- Outline what to do in the event of fires and other accidents.

Preparing an Emergency Response Plan

(to be planned before work commences so procedures can be followed without delay)

- The emergency response plan should be prepared in consultation with the workers at the workplace and emergency service agencies where appropriate.
The issues which should be addressed in an emergency plan include the following:
- Locations of first Aid Kit and fire extinguisher
- Phone numbers of key personnel ie, fire department, doctors etc.
- Locations of the hazardous chemicals, personnel, equipment and emergency control rooms at the workplace, and
- Evacuation arrangements.

SAFETY DATA SHEET (SDS)

- A safety data sheet (SDS) – previously called material safety data sheet (MSDS) - provides information which allows for the safe handling and use of substance/materials in the workplace. It describes:
- The identity of the product e.g. formulation or chemical name
- The properties and uses of the product
- Health hazard information precautions for use
- Safe handling information
- First aid instructions
- Methods for safe disposal
- Identify materials/substances that the product is incompatible with
- It is important that all waste material is removed from the construction site. This may include: construction materials, oils and fuel, garbage materials such as empty containers, wrappings, excavated soils

PLANS

- Before commencing any job, you will usually receive specific work instructions which will include plans.
- The main purpose of plans is to provide a visual representations of the work to be undertaken. If there are hazards and discrepancies between plans and what is on site, a site manage, supervisor or project manager should be notified.

MANUFACTURER SPECIFICATIONS

- Manufacturer guidelines and specifications must always be followed. By law these must be made available/provided at the point of sale by the manufacturer. Manufacturer guidelines and specifications can be available for anything on site, but most likely for materials, tools, equipment, heavy machinery, hazardous substances etc.

MATERIAL SCHEDULE

- Identifies the materials required for a project.

The following documentation should be familiarised before work commences

- Codes of practice
- Safety manuals and instructions
- Safety legislation and regulations
- Site safety plans, policies and procedures
- Environmental legislations and regulations

<https://ncc.abcb.gov.au/>

NATIONAL
CONSTRUCTION CODE

PPE

When undertaking work, eyes and face, hands, feet and body protection may need to be worn.

- Head - safety helmets, sun hats;
- Eyes/face - safety spectacles, goggles, face shields;
- Hearing - ear muffs, ear plugs;
- Airways/lungs - dust masks, respirators;
- Hands - gloves, barrier creams;
- Feet - safety boots and shoes, rubber boots;
- Body - clothing to protect from sun, cuts, abrasions and burns



- It is essential that tools and equipment are checked for serviceability, and any faults are rectified or reported prior to commencement. This requires you to follow all workplace protocols for rectification and reporting applicable to your organisation. These protocols will require you to complete forms, place signage on equipment, and report faults to supervisors.
- Remember: before you use any equipment identify if there is a maintenance schedule, ensure that there are no discrepancies and that it is signed off.



DEFECTIVE EQUIPMENT PROTOCOL



Pre checks

Check lubricants,
hydraulic fluid and
water

Check power tool
guards, retaining
bolts, couplings,
gauges and controls

Ensure that tools are
appropriately
sharpened

Check tools, leads
and hoses for tags.

Screed Types Definitions

- **Laser** – Has a boom with levels attached to keep the screed head at the correct datum level
- **Magnesium** – A very lightweight screed
- **Petrol driven** – Uses an engine and spreads large amounts of concrete
- **Rolling** – Operates with a tube made from carbon steel. Has rail supports on both ends to operate

MAINTENANCE

Air or petrol
driven

Check oil levels

Laser

Calibrate

Magnesium

Clean, oil

Rolling

Replace oils

Trowel Definitions

- **Fresno** – A steel trowel attached to a bull float handle/stick. It does not achieve the same degree of compaction as a hand trowel
- **Magnesium trowel** – Lightweight, it smooths the surface of concrete without pulling the surface like a wood or resin tool
- **Ride on troweling machine** – Used for large areas, usually petrol operated
- **Walk behind trowel** – A powered trowel, used in medium spaces and around objects

MAINTENANCE

Fresno trowel

Clean, oil

Magnesium trowel/float

Clean, coat in oil

Ride on trowelling machine

Check oil levels

Steel trowel

Clean, coat in oils

Stick trowel

Clean, coat in oils

Walk behind trowel

Clean, check oil
levels

TOOLS, NAME, USE

Portable power tools

e.g. Grinder

Use - cutting steel

Static power tools

e.g. power screed

Use - screeding concrete

TOOLS, TASKS, LIMITATIONS

Bolt Cutter

Use - Cutting reo mesh
Limitations – Can only cut to a certain thickness

Crow Bar

Use- digging in dirt
Limitation – not good on concrete or rock

Cutting Knife

Use- opening boxes or tape
Limitation – goes blunt easily, only used on soft materials

Edging tool

Use – trowelling a smooth finish around edges of slab
Limitation - will only do a certain width and you must do at a certain time

Float

Use - finishing a concrete surface
Limitation – must be used at a certain time for affect

Grinder

Use - grinding or cutting metal
Limitations - size of metal, blade size, heat

Hammer

Use - deliver impact on a small area
Limitations - not good for big jobs, very slow process

Jointer

Use - put dummy joints in concrete
Limitations - can only go a certain thickness

Kneel board

Use - for kneeling on to protect knees
Limitations - will have to be moved all the time

Levelling equipment

Use - putting concrete to a level, as per RL or plan
Limitations - Difficult equipment has its own limitations

Long handled shovel

Use - digging up dirt or moving concrete
Limitations - needs a lot of space to use

TOOLS, TASKS, LIMITATIONS

Measuring tape

Use - measure a distance between 2 points
Limitations – size of measuring tape

Nail Bag

Use - for holding nails
Limitations - size of bag

Pick

Use - digging up dirt
Limitations - not good on rock or concrete

Pinch Bar

Use - for de-nailing formwork
Limitation – size of formwork not good for de-nailing

Plier

Use - tying wire or cutting wire or bending wire
Limitations - thickness of material to tie or cut

Rake

Use - pushing or pulling concrete
Limitations - can only do a little bit at a time

Sledge Hammer

Use - to apply a large force to an area
Limitations - can only swing for a short time due to weight

Steel fixing reel

Use - holds wire in place for fixer
Limitations - Have to replace wire reels when needed

String line

Use - to get straight line from point to point
Limitations - Sags over long distances

Wire brush

Use - removing rust or rubbish out of metal
Limitations - Can only do a small area at a time and it takes a long time

PLANT, TASKS, LIMITATIONS

Compressor

Use - give air to tools

Limitations - only produce
so much air at once

Elevated work platform

Use - working at a height

Limitations - must have a
hard ground

Scissor lift

Use - working at a height

Limitations - must have a
hard ground

Vibrator

Use - getting rid of air
voids

Limitations - only used in
small amounts of time

MAINTENANCE

Compressor

Check and
replace/fill oil

Elevated work platform

Check and fill oils

Scissor lift

Check and fill oils

Vibrator

Check and fill oils,
clean

Barricading must be used when concrete work is being undertaken as it informs other workers on site or public that a concrete job is undergoing and should not be walked over.

Safety signs should be placed at eye height, where it is visible and around the work area it relates to e.g. Do Not Enter, PPE required.

Electrical equipment must be tested by a licensed electrician or a trained competent person.

Electrical power tools should be connected to a Residual Current Device (RCD) before connecting to the mains supply.

Orange and yellow power leads must be used on a construction site.

Clean Up

- When work is completed the site should be cleaned.
- Excess materials used should be recycled or returned to storage.
- Maintain plant, tools and equipment
- All tools and equipment used on the job should be cleaned in order to maintain them in good condition. They should be stored safely and correctly in accordance with the manufacturer's recommendations and standard work practices, so as not to damage them.
- Report faults in logbook and in site records
- Concreting plant and tools should be stored in a dry safe location so they are protected from the elements.

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