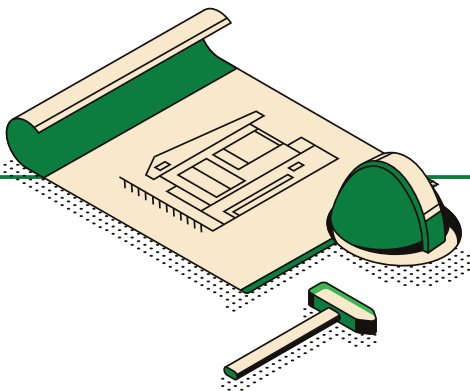


# CONSTRUCTION SAFETY

## POCKETBOOK FOR SOUTH AFRICA



FIDELIS A. EMUZE

*sb*

**CONSTRUCTION SAFETY  
POCKETBOOK**

FOR SOUTH AFRICA

**FIDELIS A. EMUZE**

*sb* **SUNBONANI  
SCHOLAR**

*Construction Safety Pocketbook for South Africa*

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## **DISCLAIMER**

The publisher and the author cannot be held liable for the safety of construction workers. This pocketbook provides guidelines, which can be implemented to enhance safety at construction sites. However, the full set of construction regulations (2003 & 2014) should be consulted when implementing policy, rules and regulations at a construction site.

# INTRODUCTION

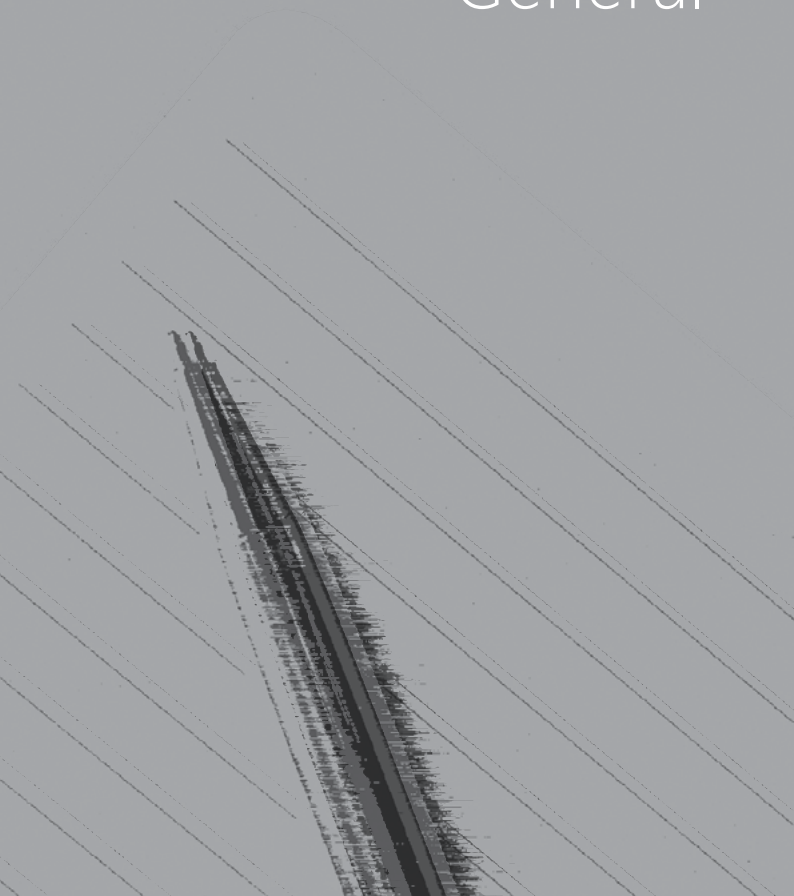
Construction is one of the oldest activities known to humankind, yet it is an industry where the health, safety and wellbeing of people are often at risk. While the laws and regulations, to prevent harm in construction in South Africa, are up to date with most developed countries, the level of accidents, injuries and fatalities remains a challenge.

The *Construction Regulations of 2003* was an attempt to improve the situation and have subsequently been revised and gazetted as *Construction Regulations 2014*. However, field research has shown that compliance with the regulations is limited by low awareness and knowledge on construction sites throughout the country. This pocketbook aims to help overcome this problem. The purpose of the pocketbook is to enhance compliance-based safety. Workers and professionals in construction charged with task completion are compliance minded. Although it is a minimum on a worksite, compliance is necessary to conform to regulations, rules, and policies that protect lives in construction.

This book serves as a handy reference about the common hazards and risks faced on construction sites and is based upon the *Construction Regulations 2014*. Presented in the form of 'do' and 'do not' checklists, the pocketbook is intended to be used on site by those involved in frontline activities in construction projects in South Africa and has been designed to fit into the pocket of construction workers' clothing.

# 01

General



# ACCIDENT AND INCIDENT REPORTING

## DO

- Report all accidents, incidents and near misses to your supervisor or manager.
- Record all accidents, incidents and near misses on the forms provided.
- Co-operate with investigations and enquiries could be important to stop accidents, incidents and near misses from happening in the future.
- Keep evidence that could be important for accident/incident investigations and enquiries.
- Report all injuries to your supervisor or manager.

## DO NOT

- Forget to report events that might cause serious injury.
- Forget to report events that might cause loss of life.
- Destroy evidence that could be important for enquiries about accidents, incident or near misses.
- Avoid enquiries about accidents, incidents or near misses.

# FIRST AID

## ✓ DO

- Think, be alert and know your limitations.
- Raise the alarm with a trained first-aider and take instructions from him/her.
- Contact the emergency services (ER24) if first aid is not available.
- Remove the cause of harm if it is safe to do so.
- Keep non-essential people away from the scene of an accident or incident.
- Care for and protect your skin from too much sunlight and hot substances.
- Stay hydrated by drinking water and other fluids.
- Remove gloves when they are not needed for work.
- Keep clear of an accident scene, unless you are called upon to assist.



## ⊗ DO NOT

- Put colleagues or yourself in danger.
- Get in the way if you are an onlooker and unable to help.
- Expose your skin to harmful substances.
- Wear gloves that are wet or dirty.

# HEALTH AND WELLBEING

## DO

- Take steps to ensure worksite health, such as observation and monitoring.
- Follow and apply health-related information and instructions.
- Follow and apply health-related policies.
- Alert your supervisor or manager if you are unwell.
- Alert your supervisor or manager if your health condition might affect safety at work.
- Alert your supervisor or manager if the health conditions of co-workers might affect safety at work.
- Inform your supervisor or manager if you are pregnant.

## DO NOT

- Work in dangerous situations when you are taking medicine.
- Work if you are drowsy.
- Work under the influence of substances (alcohol or drugs, such as cannabis).
- Ignore or underestimate symptoms of ill health.

# PEOPLE

## A CONSTRUCTION WORKER'S DUTIES

- Comply with the construction regulations required to carry out your task.
- Comply with the health and safety steps required to carry out your task.
- Work with management in all matters relating to health and safety.
- Understand and apply the measures to control any risks that have been identified in construction work.
- Ensure that you use correct personal protection equipment (PPE).
- Ensure that you use PPE for its proper purpose.
- Use equipment, plant, and tools according to the correct methods.
- Report defects in work methods, materials and equipment.
- Suggest other methods that could improve the safety of work activities.
- Always consider your health, safety and wellbeing, and that of others in your workplace.

*Note: General principles of prevention (GPP) is mandatory in construction. The use of PPE is a last resort in mitigating exposure to hazards.*

## **A CONSTRUCTION SITE MANAGER'S DUTIES**

- Comply with the construction regulations required to carry out your tasks.
- Comply with the health and safety steps required to carry out your tasks.
- Read, understand and apply all the recommended steps to prevent risks that have been identified in the workplace.
- Provide a worksite that does not threaten the health, safety, and well-being of workers.
- Encourage good health, safety and wellbeing practices by setting an example.
- Ensure the worksite is free of material, equipment or substances that could cause harm to personnel on site.
- Investigate, record and report accidents, incidents and near misses.
- Inform workers of the causes of accidents and incidents and the control measures that are in place.
- Take all possible steps to reduce or remove work hazards and risks.
- Ensure that workers have the required skills to carry out their tasks.
- Monitor work methods regularly to ensure that human failures (errors and violations) are prevented.
- Discipline the relevant personnel if they violate safe working procedures.
- Ensure that personnel are not at risk of loss of life.
- Provide suitable and sufficient supervision.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

## DO

- Wear PPE required to carry out all work safely.
- Wear PPE required for the task.
- Check PPE for wear and tear before use.
- Report faulty, damaged or missing PPE.
- Use PPE correctly and always keep it clean.
- Store unused PPE in a suitable place.
- Use harnesses and lifelines when working on surfaces higher than 1.8 m.
- Use hardened safety glass lenses if you wear prescribed eyeglasses.
- Wear goggles if flying particles are a danger.
- Wear a breathing mask if the amount of dust, toxic fumes and other harmful substances exceeds the laid-down safety levels.
- Wear safety work boots that are in good condition.

*Note: General principles of prevention (GPP) is mandatory in construction. The use of PPE is a last resort in mitigating exposure to hazards.*

## ⊗ DO NOT

- Use PPE if you have not been trained in its use.
- Ignore the use of hand protection (gloves) when climbing, lifting or handling dangerous substances.
- Ignore the use of approved ear protection where the level of noise is high (more than 85 dBA).
- Ignore the use of rubber boots when doing concrete work.
- Ignore the use of life jackets when working around deep water.
- Ignore the use of barricades, hard hats, face shields, breathing masks and other relevant PPE when working in confined spaces.



# SIGNS



# DANGER

## CONSTRUCTION SITE

 **AUTHORISED  
PERSONNEL ONLY**

SAFETY INDUCTION MUST BE  
OBTAINED PRIOR TO ENTERING SITE

ALL VISITORS TO  
REPORT TO  
SITE OFFICE



WORKING  
OVERHEAD



CONSTRUCTION  
VEHICLES



15  
KM/H



NO ALCOHOL  
ALLOWED



NO DRUGS  
ALLOWED

GET SERIOUS ABOUT WORKPLACE HEALTH & SAFETY



SAFETY SHOES  
MUST BE WORN



HARD HAT  
MUST BE WORN



EYE PROTECTION  
MUST BE WORN



DUST MASK  
MUST BE WORN



HAND PROTECTION  
MUST BE WORN

MUST BE WORN ON THIS SITE WHERE REQUIRED

## CAUTION: HEAVY MACHINERY OPERATING

## DANGER



DO NOT ENTER  
MEN AT WORK



## DANGER



# OPEN HOLES

# WORK AREAS

## DO

- Aim to reduce the risk of harm in your worksite.
- Take all relevant steps to control risk at your worksite.
- Keep the floors and the worksite clean, dry and tidy.
- Clean up immediately when anything is spilt.
- Store tools and equipment correctly.

## DO NOT

- Leave anything lying about that might cause anyone to trip.
- Misuse or abuse your worksite or equipment (rough or careless playing).
- Litter your worksite.
- Use cell phones and other devices where prohibited.

# WORKING ALONE

## DO

- Report any medical condition that may be a reason why you must not work alone.
- Work according to planned activities and work methods.
- Understand and take all applicable steps to control risk.
- Check communication links regularly where applicable.
- Return to the office after finishing the work at an agreed time.
- Report changes to your planned work where applicable.

## DO NOT

- Forget to tell someone in the office how and where you can be contacted.
- Continue to work if you are feeling unwell.
- Continue to work if unexpected safety-related issues occur on the worksite.

# WORKSITE EQUIPMENT

## DO

- Use the appropriate equipment for the task.
- Follow safe operating steps and comply with maintenance procedures and information.
- Establish a safe working area in which to use equipment.
- Demarcate work areas where necessary.
- Know how to operate (start and stop) equipment before use.
- Use guards and protective devices where applicable.
- Stay alert when working with equipment.
- Switch off equipment when it is not being used.

## DO NOT

- Use faulty equipment.
- Fail to report faults in equipment.
- Run any engine while re-fuelling it.
- Use equipment on hot surfaces.
- Exceed safety limits when working with equipment.
- Use equipment without authorisation.
- Use equipment without receiving the proper training.
- Wear jewellery and clothing that could get caught up in moving parts.
- Distract operators using equipment.
- Operate fuel-burning engines in or near confined spaces.

# WORKSITE RULES

## DO

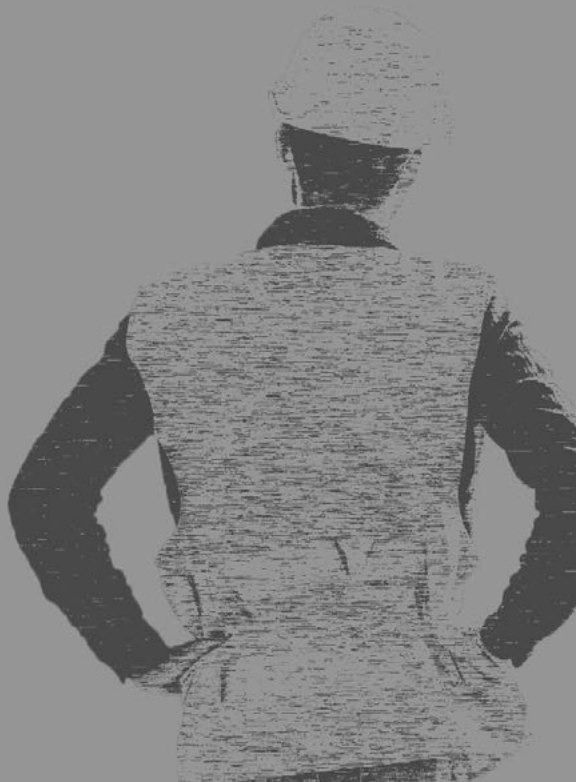
- Report for work on time and be fully prepared.
- Wear suitable clothing for work on site.
- Observe good personal hygiene.
- Use the toilet facilities provided by management on the worksite.
- Inform your supervisor if you are taking medicine that could affect your ability to work.
- Wear PPE as required to carry out a specific task.
- Wear a hard hat at all times.
- Understand that keeping the workplace clean and safe is everyone's responsibility.
- Follow all rules and regulations for motor vehicles.
- Cover and barricade any openings in the floor.
- Take note of 'Danger', 'Warning', 'Caution', and 'No Smoking' signs and notices on the worksite.
- Handle chemical and other dangerous substances with care on the worksite.
- Report all unsafe actions and conditions on the worksite.
- Attend the required toolbox meetings for all workers.

## DO NOT

- Wear soft shoes, sandals or similar shoes.
- Wear loose clothing, jewellery and long hair.
- Sleep, gamble, rough and tumble, fight or steal on the worksite.
- Bring weapons and firearms to the worksite.
- Use alcohol, drugs or similar substances on the worksite.
- Use ladders that have not been inspected.
- Enter an underground digging unless it has been certified as safe.
- Burn paper, wood, scrap or other solid waste on the worksite.
- Leave used fire extinguishers in the work area.
- Expose people to dangerous conditions or actions on the worksite.
- Have paper, plastic or other flammable material nearby when you are welding or cutting on the worksite.
- Forget to use a screen to reduce the risk of welding flashes to others on the worksite.
- Stand on moving vehicles and trucks.
- Seat inside or in the back of vehicles without using seat belts.

# 02

## Management and Supervision



# APPOINTMENT AND CONTROL OF PERSONNEL

## CONTRACTOR'S RESPONSIBILITY

### DO

- Appoint a competent person as construction manager.
- Appoint a competent person as assistant construction manager where applicable.
- Appoint a competent person as construction health and safety officer where applicable.
- Appoint competent people as construction supervisors responsible for construction activities.
- Appoint competent people as construction employees (workers).
- Establish employer/worker forums or committees as required by OHS Act 85 of 1993.

## CONTRACTOR'S RESPONSIBILITY

### **⊗ DO NOT**

- Allow construction managers to manage construction work beyond their appointed scope or outside of their allotted areas.
- Allow construction supervisors to supervise construction work beyond their appointed scope or sections.
- Appoint a health and safety officer who is not registered with a recognised organisation (such as the SACPCMP).
- Appoint a health and safety officer who lacks the ability and resources to assist the contractor.

*(See pages 16-18 of Construction Regulations, 2014)*

# ASSESSING RISKS FOR CONSTRUCTION WORK

## CONTRACTOR'S RESPONSIBILITY

### DO

- Apply safe work steps to control known dangers and risks.
- Monitor the steps taken to control dangers and risks.
- Review loss control actions where applicable.
- Appoint a competent person to train workers on how to carry out steps for control.
- Record control steps on paper and have this document available on worksites.
- Allow workers to refuse to work where necessary.

## CONTRACTOR'S RESPONSIBILITY

### DO NOT

- Place workers in danger with poor work design.
- Ignore the suggestions of workers about steps to control danger and risks.

*(See pages 18-19 of Construction Regulations, 2014)*

# BREAKING-DOWN WORK

## DO

- Make sure competent people supervise and carry out breaking-down work.
- Carry out a detailed structural engineering survey before the start of breaking-down work.
- Check the structure of buildings for damage during breaking-down work.
- Make sure overhanging materials are supported during breaking-down work.
- Make sure that nearby structures are stable during breaking-down work.
- Be aware of the position of services (electricity, water, gas) that might be affected by breaking-down work.
- Ensure that there is enough lighting during breaking down work.
- Ensure secure access to structures during demolition works.
- Make sure work involving asbestos is carried out according to the law.
- Make sure work involving lead-metal is carried out according to the law.
- Use explosives according to the approved directions.

## **⊗ DO NOT**

- Start breaking-down work until the position of services that might be affected (electricity, water, gas) has been ascertained.
- Fail to use the approved methods of entering a structure during breaking-down works.
- Overload any part of a structure with rubble or waste so as to make it unsafe.
- Allow any part of a structure to collapse in an uncontrolled manner.
- Allow any part of the structure or nearby structure to collapse by accident.
- Permit work to be done under unsupported overhanging material or structures.
- Allow waste or rubble to be thrown away from heights without following safety steps.
- Fail to follow the law when throwing away waste and rubble.

*(See pages 26-28 of Construction Regulations, 2014)*

# ELECTRICITY ON CONSTRUCTION SITES



## ✓ DO

- Identify and guard against danger from electrical cables and connections.
- Use long-lasting electrical fittings and machinery.
- Allow only competent and authorised personnel to carry out electrical work.
- Inspect electrical fittings and machinery regularly to check for faults.
- Check that electrical equipment is serviceable before use.
- Replace damaged cables, plugs and sockets.
- Read and follow instructions about the use of electrical equipment.
- Make sure that the electrical equipment used is suitable for the particular task.
- Check for overhead electrical services.

- Keep to the required, safe working distance from overhead electrical services.
- Follow the agreed instructions and steps for working safely around overhead electrical services.
- Pinpoint any underground electrical services.
- Keep to a safe distance around cables and pipes.
- Dig around cables and pipes by hand.
- Stay in the cabin of the digging machine if you accidentally strike an electric cable until it is safe to climb out of the machine.

## **DO NOT**

- Use faulty electrical equipment.
- Leave faulty electrical equipment lying around for others to use.
- Overload electrical plugs and sockets.
- Raise the body of a lorry under overhead electrical services or powerlines.
- Work on electrical services that are switched on unless you are authorised to do so.
- Assume that an underground service has been switched off.
- Use hand-held power tools near cables or pipes.

*(See page 41 of Construction Regulations, 2014)*

# STRUCTURES OR BUILDINGS

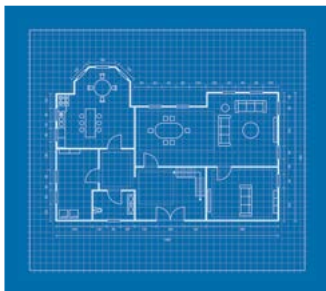
## ✔ DO

- Make sure all drawings of a structure are available on the worksite.
- Make sure a competent person carries out regular safety inspections.
- Make sure a structure is safe for the time it will be used.
- Keep records of all inspections and work done to maintain a structure.

## ⊗ DO NOT

- Allow a structure to collapse in an uncontrolled manner.
- Load a structure in such a way that it is unsafe.

*(See pages 21-22 of Construction Regulations, 2014)*



# TEMPORARY WORKS AND SCAFFOLDING

## DO

- Make sure competent people supervise and carry out temporary work, including scaffolding.
- Make sure that temporary works are approved before they are built on site.
- Make sure that temporary structures are firm and properly supported.
- Make sure that the design information for temporary works is available on-site.
- Make sure that only competent people build, move and take down temporary works.
- Make sure that equipment for temporary works is suitable and inspected for safety.
- Secure all deck panels so that they do not slide or tip over.
- Control who may make use of temporary works.

## ⊗ DO NOT

- Use temporary works that are damaged or weak.
- Do not confuse the use or purpose of scaffold (used for access) with that of other support work.
- Use substances on temporary works that might cause people to slip.
- Use liquids, oils or other substances that affect the health of workers.
- Remove temporary works before being authorised to do so.

(See pages 22-23 of *Construction Regulations, 2014*)



# 03

## Fall Protection and Working at Heights



# GENERAL FALL PROTECTION

## DO

- Make sure that a fall protection plan is available on a worksite.
- Make sure workers are medically fit to work in a fall risk position.
- Where applicable, train workers to work in fall risk positions.
- Inspect, test and maintain all fall protection equipment.
- Fence or guard all unprotected openings on a worksite.
- Use a safety harness if instructed.
- Use suitable guard rails or similar equipment to prevent falls from a height.
- Use stabilising jacks on vehicles with raised platforms.
- Inspect and secure ladders before climbing.
- Set ladders at a slope of at least 1:4.
- Extend ladders at least 1 m above a landing platform.
- Always keep one hand on a ladder while climbing/working.

## DO NOT

- Leave hoist controls unattended.
- Overload raised platforms.
- Use wooden ladders with wet paint.
- Use metal or steel ladders near overhead power lines/grids.
- Carry awkward or heavy loads on a ladder.
- Carry too much when working on a ladder.

*(See pages 19-21 of Construction Regulations, 2014)*

## HANGING PLATFORMS

### DO

- Make sure competent people supervise and carry out work on hanging platforms.
- Follow steps for safety when working on a hanging platform.
- Always attach a body harness to hanging platforms.
- Make sure all workers wear a body harness on hanging platforms.
- Fit appropriate safety notices on hanging platforms.
- Carry out a daily safety inspection of hanging platforms.
- Make sure that all safety parts are working.

- Make sure workers are medically fit to work on hanging platforms.
- Train workers to climb on and off a hanging platforms safely.
- Provide information to workers about the safe steps for using hanging platforms.

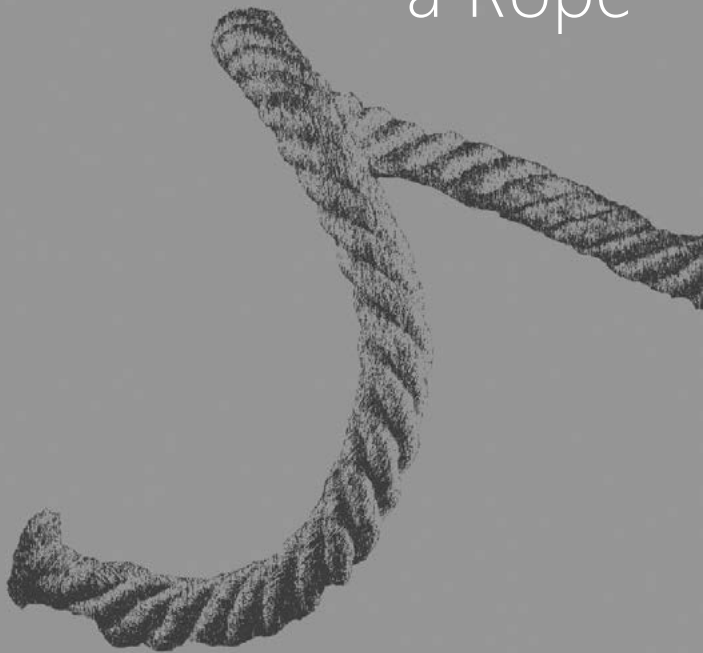
## **⊗ DO NOT**

- Allow the working platform to move out of control.
- Loosen the connection bolts of a hanging platform.
- Misuse or damage safety parts of a hanging platform.
- Carry a load that is heavier than the weight limit for a hanging platform.
- Overlook or ignore problems when working on a hanging platform.

*(See pages 29-33 of Construction Regulations, 2014)*

# 04

## Work Using a Rope



# WORK USING A ROPE

## DO

- Make sure competent people supervise and carry out work using a rope.
- Make sure that a rescue procedure is in place in case of a fall while using a rope.

## DO NOT

- Undertake any rope-work where equipment and anchors do not comply with the law.
- Do rope-work where a site-specific, fall protection plan is not available.

*(See pages 33-34 of Construction Regulations, 2014)*

# 05

## Underground Digging



# GENERAL SAFETY PRECAUTIONS/PROCEDURES

## DO

- Make sure competent people supervise and carry out underground digging.
- Make sure the ground/soil is stable before digging begins.
- Use suitable support for the ditch to stop the soil from collapsing.
- Make sure material used is strong enough to support the sides of holes or trenches being dug.
- Make sure that a competent person regularly inspects the supports used for underground digging.
- Be sure to control access to underground digging.
- Know the position of services (electricity, water, gas) affected by underground digging.
- Inspect the site of underground digging (including supports) daily before the start of work.
- Inspect underground digging (including supports) after a blasting has been carried out.
- Inspect underground digging (including supports) after a fall of ground.
- Inspect underground digging after damage to supports (material used to support the sides of the hole or trench).

- Inspect underground digging (including supports) after rain.
- Fence or guard underground digging and use warning signs to prevent accidents.
- Store rubble, plant and vehicles away from the edges of underground digging.
- Slope sides of underground diggings to a safe angle.

## **⊗ DO NOT**

- Allow a person to be buried or trapped by a fall of materials in an underground digging.
- Allow work in an underground digging that has not been supported and strengthened properly.
- Place load, material, plant or equipment near the edges of an underground digging.
- Start underground digging until the position of services that might be affected (electricity, water, gas) has been found.
- Fail to take the required steps to stop dangerous fumes from building up in an excavation.
- Fail to use the approved way to enter an underground digging (e.g. ladder).
- Fail to use a safe method to put up and take down support for the underground digging.

*(See pages 24-26 of Construction Regulations, 2014)*

# DIGGING TUNNELS AND CONFINED SPACES

## DO

- Make sure competent people supervise and carry out tunnel-digging work.
- Follow all safety precautions when entering a tunnel or confined space.
- Understand and apply clear instructions to follow in an emergency.
- Inspect all safety equipment before entering a tunnel or confined space.
- Pump air into a tunnel or confined space where applicable.
- Test the air inside a tunnel or confined space before entering.
- Regularly check the quality of the air inside a tunnel or confined space.
- Make sure that communication channels are open and working.
- Close off the confined space from sudden, dangerous leaks.
- Move out of the confined space if the conditions are unfavourable.
- Move out of the confined space if you are not well.

## **DO NOT**

- Start digging a tunnel until the positions of services that might be affected (electricity, water, gas) have been ascertained.
- Allow a person to enter a tunnel with a height that is less than 800 mm.
- Enter a confined space unless you are trained and certified competent to do so.
- Use breathing equipment unless you are trained and medically fit to do so.
- Use electrical equipment and tools that could spark in a tunnel or confined space.
- Smoke in a tunnel or confined space.
- Use fuel-burning engines or gas equipment in a tunnel or confined space.

*(See page 29 of Construction Regulations, 2014)*

# 06

## Working in Large Areas of Water



# WORKING IN LARGE AREAS OF WATER

## DO

- Make sure competent people supervise and carry out work in or near water.
- Prevent people from falling into any water on the site.
- Rescue people in danger of drowning.
- Use a life-jacket if there is a risk of drowning.
- Wear articles to stay afloat where applicable.
- Check communication links regularly when working in water.
- Check tides and weather conditions regularly while working in or near water.
- Only use boats that are properly equipped and in good working.

## DO NOT

- Fail to follow instructions from the person in charge of a boat.
- Set out in a boat without informing the line manager.
- Set out in a boat without informing coastguards (when applicable).

*(See page 42 of Construction Regulations, 2014)*

# 07

## Construction Vehicles and Moving Plant



# GENERAL SAFETY PRECAUTIONS/PROCEDURES

## DO

- Make sure competent people work with vehicles and moving plant.
- Ensure that vehicles and moving plant are kept in good working order.
- Make sure vehicles and moving plant have suitable entrances and exits.
- Make sure vehicles and moving plant do not fall into underground diggings.
- Fit an automatic reversing sound alarm to vehicles and moving plant.
- Fit warning devices to vehicles and moving plant.
- Inspect vehicles and moving plant daily.
- Make sure that pedestrians and vehicles can move safely at the worksite.
- Use suitable signs to show traffic routes.
- Safely store and secure unused vehicles and moving plant.
- Make sure vehicles and moving plant are used according to the law.
- Use suitable vehicles, with seats, to transport workers.
- Make sure drivers and operators wear suitable clothing that makes them visible to others on the site.

- Follow the traffic rules and codes.
- Safely park vehicles and moving plant which are not being used.
- Ensure that all signs and cones used to control traffic are in good condition.
- Provide a suitable map of the site and work area for traffic.
- Consider the safety of pedestrians during work time.

### **⊗ DO NOT**

- Allow people to ride dangerously on vehicles and moving plant.
- Use hand signals to control/direct traffic.
- Block safety signs from view by parking vehicles or moving plant in front of, or behind, them.
- Allow kerbs or other materials to block signs from view.

*(See pages 39-40 of Construction Regulations, 2014)*



# BULK MIXING PLANT

## ✔ DO

- Make sure competent people supervise and carry out work using a bulk mixing plant.
- Set up a bulk mixing plant according to the instructions.
- Check that the working parts of the bulk mixing plant are in working order.
- Place dangerous moving parts of mixing plant beyond the reach of workers.
- Inspect the bulk mixing plant daily for safety reasons.

## ⊗ DO NOT

- Allow unauthorised people to work with bulk mixing plants.
- Allow any unauthorised personnel to change the safety equipment attached to a mixer.

*(See pages 36-37 of Construction Regulations, 2014)*

# CRANES

## DO

- Make sure competent people supervise and carry out work with cranes.
- Develop and apply relevant instructions about how to assess risk when working with cranes.
- Fit a wind speed instrument to cranes to inform/warn operators of the wind speed.
- Make sure tower cranes and tracks have a firm base.
- Make sure tower-crane drivers are medically fit to do the work.

## DO NOT

- Allow tower cranes to be set up on ground that is not stable.

*(See pages 38-39 of Construction Regulations, 2014)*

# DRIVING HEAVY VEHICLES: LOADING AND TIPPING OF TRUCKS

## DO

- Make sure drivers use a suitable vehicle for which they have a driver's licence.
- Check that vehicles are in a suitable condition to be used on the road.
- Secure and pack the load evenly inside a vehicle.
- Drive carefully and be alert.
- Obey traffic signs and traffic officers.
- Follow the traffic rules and code.
- Keep the vehicle's brakes on during loading and unloading.
- Tip the load onto level and stable ground.
- Be aware of overhead dangers (e.g. powerlines).
- Keep the truck level when moving forward during tipping.
- Be careful when handling tail and side gates of the truck.
- Stay clear when tipping the load off the truck.

## **⊗ DO NOT**

- Overload trucks with workers or goods.
- Ignore speed limits and traffic signs.
- Add fuel while the engine is running.
- Drink alcohol and drive.
- Use substances (drugs) and drive.
- Drive if you are not well or feeling tired.
- Drive if you are taking medicine which will affect your alertness.
- Drive if taking medicine with instructions not to drive.
- Leave the truck when raising or lowering the main body.
- Raise the main body before releasing the tailgate of the truck.

# DRIVING LIGHT VEHICLES

## DO

- Make sure drivers use a suitable vehicle for which they have a driver's licence.
- Check that vehicles are in a suitable condition to be used on the road.
- Secure and pack the load evenly inside a vehicle.
- Drive carefully and be alert.
- Obey traffic signs and traffic officers.
- Follow the traffic rules and code.

## DO NOT

- Overload vehicles with workers or goods.
- Ignore speed limits and traffic signs.
- Add fuel while the engine is running.
- Drink alcohol and drive.
- Use substances (drugs) and drive.
- Drive if you are not well or feeling sleepy.
- Drive if you are taking medicine which will affect your alertness.
- Drive if you are taking medicine with instructions not to drive.

# DRIVING VEHICLES FOR TOWING

## DO

- Make sure drivers use a suitable towing vehicle for which they have a driver's licence.
- Check that vehicles are in a suitable condition to be used on the road.
- Secure and pack the load evenly inside a vehicle.
- Drive carefully and be alert.
- Obey traffic signs and officers.
- Follow the traffic rules and code.
- Drive the vehicle slowly to line up with the trailer.
- Pay attention when towing.
- Use safety devices required for towing (e.g. tow bar, safety chain).
- Use reversing devices where applicable when towing.
- Check that the trailer is stable before loading or off-loading.

## DO NOT

- Ignore speed limits and traffic signs.
- Add fuel while the vehicle's engine is running.
- Drink alcohol and drive.

- Use substances (drugs) and drive.
- Drive if you are not well or feeling tired.
- Drive if you are taking medicine that will affect your alertness.
- Drive if taking medicine with instructions not to drive.
- Raise the main body of the tow truck or lorry while joined to the trailer.
- Off-load materials from the tow truck's tail gate while the truck is joined to the trailer.

## **MATERIAL HOIST**

### **DO**

- Make sure competent people supervise and carry out work with material hoists.
- Set up the material hoist on a firm foundation.
- Display a notice warning against lifting loads which are too heavy for the material hoist.
- Place a notice against dangerous driving on material hoists.
- Inspect material hoists daily for safety reasons.

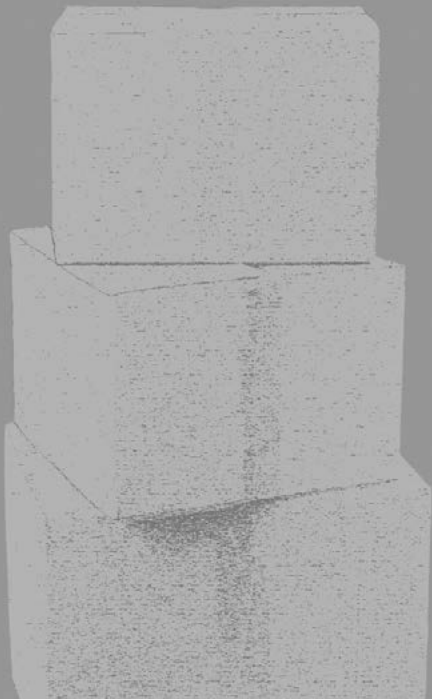
### **DO NOT**

- Allow dangerous activities on material hoists.
- Allow dangerous movement of material hoists.

*(See pages 34-36 of Construction Regulations, 2014)*

# 08

## Stacking and Storage



# GENERAL SAFETY PRECAUTIONS/PROCEDURES

## DO

- Make sure competent people supervise and carry out stacking and storage work on site.
- Provide suitable storage areas on site.
- Control and clean storage areas on site.
- Keep unauthorised people away from tools, plant and equipment.
- Store all tools, plant and equipment in a secure place.
- Comply with the required steps to control risk when storing items.
- Read labels on materials and substances.
- Store substances separately and far apart so they do not come into contact or start a chemical reaction.
- Discard items that are not needed in a safe manner.
- Use correct equipment at entrances (e.g. safety steps) where required.

## **DO NOT**

- Store an item away from the storeroom or site without authorisation.
- Allow unauthorised use of any item under your charge.
- Leave equipment powered by high pressure in dangerous positions.
- Allow items to overhang, clutter or cause obstruction.
- Store fragile items in risky positions where they can fall.
- Store pesticides or insecticides (poisons) unless you are competent to do so.

*(See page 43 of Construction Regulations, 2014)*

# HANDLING OF DANGEROUS SUBSTANCES

## DO

- Make sure only competent people work with dangerous substances.
- Read and understand the required steps to control working with dangerous substances.
- Use approved products only.
- Always wash PPE after using dangerous substances.
- Keep the workplace clean and free of spilt substances.

## DO NOT

- Use unapproved or old products after their expiry date.
- Smoke, eat and drink when working with dangerous substances.
- Draw off dangerous substances through a tube or pipe by mouth.
- Store dangerous substances in unsuitable containers.

# EXPLOSIVES, FLAMMABLE AND PRESSURED GAS CYLINDERS

## DO

- Make sure competent people supervise and carry out work with explosives and dangerous equipment.
- Use suitable protective equipment.
- Lock explosives away when they are not in use.
- Erect warning notices in a worksite where explosives are used.
- Store and use cylinders upright in an area with free-flowing air.
- Transport, store, connect and use cylinders safely.
- Avoid dropping cylinders.
- Make sure that cylinder valves are protected.
- Make sure that cylinder connections are leakproof.
- Store full and empty cylinders separately.
- Attach valve keys to cylinders where applicable.
- Keep flammables (e.g. oil and grease) away from cylinders.
- Close valves when gas is not in use.

## **DO NOT**

- Allow people to use explosives who are not authorised to do so.
- Lift a cylinder by its valve.
- Store explosives or cylinders in a warm area or where there is a risk of fire.
- Attempt to apply heat to a cylinder.
- Leave cylinders in use unattended.

*(See pages 37-38 of Construction Regulations, 2014)*

## **SAFETY STEPS TO AVOID FIRES**

### **DO**

- Take action to avoid the risk of fire.
- Store flammable liquids and substances away from anything that might cause them to catch fire.
- Forbid smoking around flammable materials.
- Display no-smoking notices to warn workers and pedestrians.
- Place fire-extinguishers at key places on site.
- Train workers to use fire-extinguishers correctly.
- Use picture plans to show ways to escape from the site in an emergency.
- Learn where fire alarms have been placed on site.
- Install and use a siren in the event of a fire.

- Help people to leave the site speedily, without panic, if there is a fire.
- Check that everyone has been able to leave the site if there is a fire.
- Shut down the site if there is a fire.
- Obey warning signs (e.g. no smoking).
- Keep fire doors closed.

### **⊗ DO NOT**

- Store flammable materials that are not needed on construction sites.
- Allow unauthorised use of any flammable item under your charge.
- Undertake work involving flame or heat without taking the required steps to reduce the risk of fire.
- Allow waste and materials to block escape routes on site.
- Leave electric plugs switched on if they are not being used.
- Obstruct fire extinguishers and hose reels on site.

*(See pages 43-44 of Construction Regulations, 2014)*

# STORAGE OF FLAMMABLE LIQUIDS/SUBSTANCES

## DO

- Make sure competent people supervise and carry out work with flammable liquids/substances.
- Read and understand the steps to control the safe storage, movement, use and discarding of flammable substances.
- Store, pour and use flammable liquids in safe spaces with free-flowing air.
- Store quantities required for immediate use only.
- Soak up, contain and safely dispose of flammable liquid or substance that is spilt.
- Keep fire-fighting equipment available in suitable places.
- Use only the required quantity of flammable liquid required per day or per activity.
- Close all containers holding flammable liquids when not in use.
- Move flammable substances in clearly marked containers that are packed securely.
- Treat empty containers that held flammable substances in the same way as full containers.

## ⊗ DO NOT

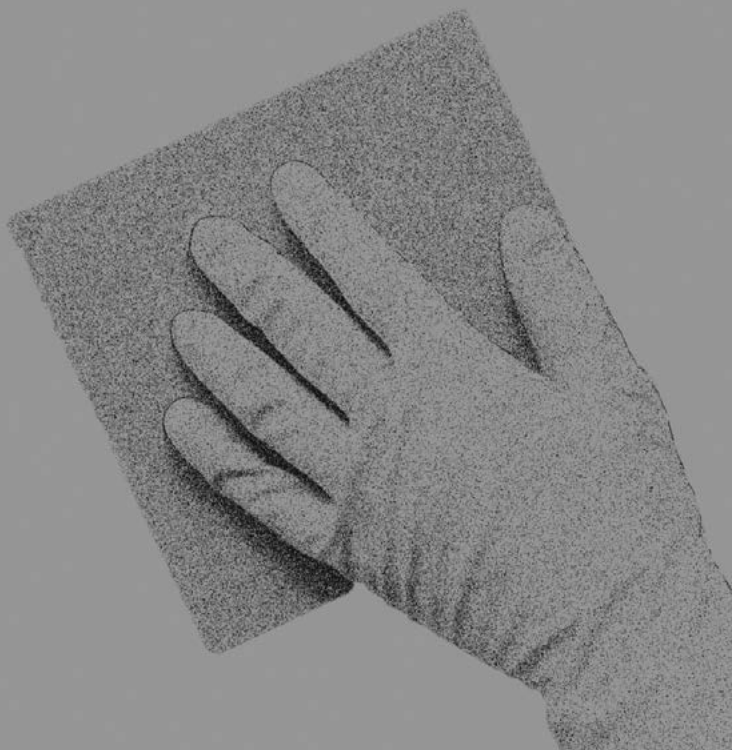
- Cause fires or explosions when using or storing flammable liquids.
- Smoke where the flammable liquid is used or stored.
- Store flammable materials (e.g. paper) together with flammable liquids.
- Expose containers to heat.

*(See pages 41-42 of Construction Regulations, 2014)*



# 09

Good  
Housekeeping



# GOOD HOUSEKEEPING

## DO

- Store materials and equipment correctly on site.
- Remove scrap, waste and rubble at appropriate times.
- Clear workways and entry points of waste.
- Remove materials that are not needed from work sites.
- Fence off sites in built-up areas.
- Control entry points so that no unauthorised people can enter the site.
- Follow the proper methods to clean up work items, materials and waste safely.
- Adhere to 'use by' and 'dispose of by' dates where applicable.
- Dump rubbish and other waste in approved places only.

## DO NOT

- Get rid of waste and rubble from a high place with a sloping shaft.
- Store waste oil except in places intended for that purpose.
- Ignore faults and safe handling methods.

*(See pages 42-43 of Construction Regulations, 2014)*

# 10

Welfare Facilities



# WELFARE FACILITIES

## DO

- Provide clean, hygienic and well-maintained shower, toilet and dressing/undressing facilities for each sex.
- Provide clean, sheltered, hygienic and well-maintained eating areas.
- Provide, store and protect drinking water on the worksite.

## DO NOT

- Position toilets too far from the worksite.
- Allow toilets to become a health risk to workers.
- Allow washing facilities to run out of cleaning material (towels, soap, etc.).
- Pollute or contaminate drinking water on the worksite.

*(See pages 44-45 of Construction Regulations, 2014)*

# 11

## Handling of Equipment



# MANUAL HANDLING

## DO

- Avoid manual handling where possible.
- Use mechanical or electrical equipment available.
- Use teamwork where applicable.
- Assess the risk of handling before lifting a load.
- Follow safe work steps and know your limits.
- Make workspace available to avoid awkward body positions and a dangerous imbalance of loads.

## DO NOT

- Lift, carry, push or pull heavy loads for long periods.
- Lift, carry, push or pull a large bulky load.
- Lift, carry, push or pull loads that are difficult to hold firmly.
- Carry out a task that needs strong physical effort for a long period.
- Work with awkward body positions or movements, such as bent wrists.

# MECHANICAL HANDLING

## DO

- Check the condition of equipment and plant before use.
- Explain the limits of a safe working load to operators.
- Note high wind that might make the equipment unstable.
- Keep a safe working distance away from overhead power lines.
- Be careful on uneven ground or slopes while working to avoid overturning the equipment.

## DO NOT

- Exceed the limits of a safe load for the equipment being used.
- Use equipment without authorisation.
- Use equipment unless you are competent to do so.
- Leave equipment powered by high pressure hanging in the air.
- Move or transport loads over people's heads.

# NOISE AND VIBRATION

## DO

- Understand and take steps to control the risks of noise and vibration.
- Use methods to reduce noise or vibration on the worksite.
- Wear approved ear protection when required.

## DO NOT

- Work longer than necessary in a noisy work area.
- Use excessive force when operating power tools and equipment.
- Ignore the use of approved ear protection where applicable (e.g. when noise levels are higher than 85 dBA).

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He is also the international coordinator of the task group: 'CIB TG59 – People in Construction'.

Construction is one of the oldest activities known to mankind, yet it is an industry where the health, safety and wellbeing of people are often at risk. While South African construction safety laws and regulations are up-to-date, the accidents, injuries and fatalities at construction sites remain a challenge.

This pocketbook, which is based on the *2014 Construction Regulations*, serves as a handy reference guide addressing the most common hazards facing construction workers.

**sb** SUNBONANI  
SCHOLAR

