

Scaffolding Safety Training

Introduction – Greeting Your Trainees

Good morning everyone. My name is _____, and I'm your Safety Officer.

Today we're going to talk about one of the most visible and potentially dangerous parts of our worksites: scaffolding.

Scaffolds are temporary structures that allow us to work at height, provide access, and support workers, tools, and materials. Used correctly, scaffolds make work safer and more efficient. Used incorrectly, they can collapse or lead to falls that seriously injure or kill.

Our goal in this session is to make sure that every one of you understands how to use, inspect, and work from scaffolds safely. We'll go through the types of scaffolds, the hazards involved, erection and dismantling procedures, your responsibilities as workers or supervisors, and what to do in emergencies. By the end, you should feel confident about recognising hazards and applying safe practices whenever you step onto a scaffold.

1. What Scaffolding Is and Why It's Used

A scaffold is a temporary elevated platform supported by uprights, brackets or suspended from above, used to support workers and materials while constructing, repairing or cleaning a building or structure.

Scaffolding is used because:

- It provides safe working platforms at various heights.
- It allows multiple workers to access the same area.
- It creates storage and movement space for tools and materials.
- It offers flexibility for changing site conditions.

Types of Scaffolds:

- Tube and coupler scaffolds – built from steel tubes and clamps.
- System (modular) scaffolds – pre-engineered frames with quick locking.
- Frame scaffolds – welded frames commonly used in building work.
- Suspended scaffolds – hanging platforms adjustable by rope.
- Mobile scaffolds (towers) – on wheels for light work.
- Cantilever scaffolds – platforms supported from a building.

2. Hazards Associated with Scaffolding

Scaffolds are designed to make working at height safer, but they bring their own hazards. Some of the main ones include:

- Falls from the scaffold due to missing guardrails, slipping, or missteps.
- Scaffold collapse from overloading, poor erection, or unstable ground.
- Falling objects like tools or materials dropped from the platform.
- Electrocution when scaffolds are too close to live electrical lines.
- Slips and trips due to clutter, mud, or weather conditions.
- Improper access — climbing on cross braces instead of ladders.

- Unsecured mobile scaffolds rolling while in use.
- Weather impacts like high winds loosening components.

Most accidents occur because scaffolds are erected or used improperly, or because inspections are neglected.

3. Legal & Company Requirements

In almost every country, laws require employers to ensure that scaffolds are:

- Designed, erected, and dismantled by competent persons.
- Capable of supporting their intended loads with a safety factor.
- Equipped with guardrails, toe boards, and safe access.
- Inspected regularly and after any incident.
- Kept clear of electrical hazards.

Our company policy follows or exceeds these regulations. That means:

- A qualified scaffolding supervisor must oversee erection, alteration and dismantling.
- Workers must receive training before using or working on a scaffold.
- All defects must be reported immediately and the scaffold taken out of service until fixed.
- We must maintain records of inspections.

When inspectors visit, they check our documentation, load ratings, and the actual condition of the scaffold. Compliance keeps us safe and legal.

4. Planning and Risk Assessment

Before scaffolding work begins, we plan:

1. Purpose and load requirements – Will it support workers only or materials too?
2. Type of scaffold – Tube and coupler, modular, mobile?
3. Location – Ground conditions, proximity to power lines, public areas.
4. Access and egress – Ladders, stair towers, safe clearances.
5. Protection from falls and falling objects – Guardrails, toe boards, netting, debris chutes.
6. Weather considerations – Wind speeds, potential for ice or storms.
7. Rescue and emergency procedures – What if someone falls or is injured?
8. Competence of workers – Who will erect, use, and dismantle the scaffold?

A written risk assessment and method statement should be prepared, communicated to everyone involved, and updated when conditions change.

5. The “Scaffold Safety Pyramid” – Hierarchy of Controls

Just like work at height, we apply controls in order:

- Eliminate the need – Use mechanical lifts if possible.
- Design for safety – Choose scaffolds that minimize risk.
- Engineering controls – Guardrails, toe boards, debris netting.
- Administrative controls – Procedures, permits, signage, supervision.
- Personal protective equipment – Harnesses, helmets, non-slip footwear.

Harnesses and lanyards are an extra safeguard, not a substitute for a properly built scaffold.

6. Erecting and Dismantling Scaffolds

Only trained and competent scaffolders may erect or dismantle scaffolds.

Erection basics:

- Start with sound footing – solid base plates, mud sills or sole boards.
- Build plumb and level – check vertical and horizontal alignment.
- Install bracing as you go – diagonal braces prevent sway.
- Keep platforms fully planked – no gaps or missing boards.
- Add guardrails and toe boards as soon as the working level is built.
- Provide safe access – ladders or stair towers installed during erection.

Dismantling basics:

- Reverse the erection sequence.
- Remove materials and tools first.
- Lower components carefully – don't throw them.
- Keep people clear of the drop zone.
- Maintain guardrails on lower levels until no longer needed.

7. Scaffold Components and Inspections

Key components to check:

- Standards (uprights) – not bent or corroded.
- Ledgers and transoms – secure connections.
- Couplers/clamps – properly tightened.
- Planks/boards – free of cracks, properly supported.
- Guardrails and midrails – at correct height (typically 1.0–1.2 m).
- Toe boards – at least 150 mm high.
- Access ladders – secure and extending above platform.
- Base plates and sole boards – adequate size, on stable ground.

Inspection requirements:

- Before first use each shift.
- After any event that could affect stability (high winds, impact).
- At regular intervals specified by law (often every 7 days).
- Record inspections in the site log.

If you find a defect, tag the scaffold “Do Not Use” and inform your supervisor immediately.

8. Working Safely on Scaffolds

When you're on a scaffold:

- Wear your PPE – helmet with chin strap, non-slip footwear, harness if required.
- Keep platforms clear of debris and materials.
- Do not exceed load limits – check scaffold tag for capacity.
- Don't climb cross braces – use ladders or stair towers.

- Maintain three points of contact when ascending or descending.
- Stay inside guardrails – no leaning or reaching outside.
- Use tool lanyards to prevent dropped objects.
- Do not move mobile scaffolds while anyone is on them.

Supervisors should enforce these rules and correct unsafe behaviour immediately.

9. Mobile and Suspended Scaffolds

Mobile scaffolds (towers):

- Must have locking wheels.
- Must be on level ground.
- Must not be moved while occupied.
- Must have guardrails and toe boards.

Suspended scaffolds:

- Only trained personnel may operate hoists.
- Inspect all ropes, cables and brakes daily.
- Use independent lifelines and harnesses.
- Never overload or use in high winds.

10. Electrical and Environmental Hazards

Keep scaffolds at least the required clearance from power lines (often 3–6 m depending on voltage). Use warning signs and barriers. In wet or windy weather, postpone work or take extra precautions. Ice or mud can make platforms slippery.

11. Rescue and Emergency Planning

We plan not just to prevent accidents but to respond if they happen:

- Falling object injuries – first aid kits and trained personnel on site.
- Falls from scaffold – rescue plan and equipment ready.
- Collapse or structural failure – evacuation procedures.
- Weather emergencies – stop work and secure scaffold.

Practice drills so everyone knows their role.

12. Training and Competency

Our company policy:

- All workers who erect, dismantle, or use scaffolds must receive scaffold safety training.
- Training covers hazard recognition, load capacities, fall protection, access, and emergency response.
- Competency is verified by practical demonstration and/or written assessment.
- Refresher training is required periodically or after incidents.

13. Roles and Responsibilities

Workers:

- Use scaffolds properly.
- Follow training and procedures.
- Report defects immediately.
- Keep platforms tidy.

Scaffolders:

- Erect and dismantle according to manufacturer/standard.
- Install all safety features.
- Inspect as you build.

Supervisors:

- Ensure only competent people erect, alter, or dismantle.
- Check inspections are done and recorded.
- Stop work if unsafe.

Safety Officer:

- Plan and authorise scaffold work.
- Audit compliance.
- Provide training and refreshers.

14. Common Mistakes to Avoid

- Working on incomplete scaffolds without guardrails.
- Overloading platforms with materials.
- Using damaged or unsuitable components.
- Removing braces or ties to “make space.”
- Climbing cross braces or outside the guardrails.
- Moving mobile towers with people on them.
- Ignoring high wind warnings.
- Failing to wear PPE.

15. Summary & Key Messages

- Scaffolds are essential but potentially dangerous structures.
- Plan and design for safety before erection.
- Only competent persons may erect, alter, or dismantle scaffolds.
- Inspect scaffolds before use and after any incident.
- Use guardrails, toe boards, and safe access every time.
- Wear your PPE and use tool lanyards.
- Keep platforms clear and respect load limits.
- Have a rescue plan and practice it.
- Supervisors must enforce procedures and lead by example.
- Everyone has the right and duty to speak up about unsafe scaffolds.

By following these principles, you protect not only yourself but also your team and everyone below.