Guidelines for Scaffolding Safety

What’s at Stake?

Scaffolds make it possible to work at heights that ladders, and lift equipment can’t reach. But, if you aren’t following safe work practices the consequences can be life-threatening. Here are three examples.

- Two workers were performing siding installation work at a residence. The pump jack scaffold system they were on failed, and the workers fell about 12 feet.
- A worker accessed a scaffold that had no guardrails in place and was not fully decked. The decking that was in place was not secure and the worker fell about 9 feet, followed by the deck.
- A scaffold system failed during a windstorm. A manufactured scaffold plank (2 by 10 feet) became dislodged and fell about 143 feet, severing a 25 kV overhead power line.

What’s the Danger?

The main causes of injuries and deaths related to scaffolds are:

- Poor planning when it comes to assembly and disassembly.
    - 15 to 20% of scaffold-related injuries involve erecting and dismantling and the failure to provide an adequate working platform for a worker to use when installing the next lift of scaffold. Working from one or two planks is not recommended.
- Missing tie-ins or bracing.
- Loads that are too heavy for the scaffold to support; and
- Being too close to power lines.

How to Protect Yourself

1. Competency
    1. Check that the scaffold has been designed and constructed by a qualified person or team of scaffold erectors.
    2. Know who the competent person at your site is and don’t get on the scaffold until you know they have inspected it.
    3. They should inspect the scaffold before each work shift and after anything that could affect the structure and stability of the scaffold.
2. Electricity
    1. As a rule, scaffolds should be at least 10 feet from energized power lines.
    2. If that’s not the case, talk to your supervisor or competent person and don’t get on the scaffold until it is safe.
3. PPE

    1. Wear your hard hat, non-skid work shoes, and other required PPE to protect yourself against falling objects, swinging loads, and slippery surfaces.
    2. Fall protection such as a harness and lanyard may also be required on certain types of scaffold and when guardrails aren’t in place.
4. Capacity
    1. Scaffolds should be designed to support (carry) four times any load (weight) that could be or will be placed on it.
    2. When you’re calculating the load, you must look at the live load and the dead load.
        1. The live load is the maximum combined weight of all workers, tools and materials placed on the scaffold platform at any given time.
            1. To estimate the live load, assume a weight of 200 pounds (91 kilograms) for each worker and 50 pounds (22.7 kilograms) for the worker’s tools and accessories, resulting in a combined weight of 250 pounds (113.7 kilograms) per worker on the scaffold.
            2. Multiply the number of workers on the platform by this value, adding to the result the estimated weight of any material placed on the scaffold.
        2. The dead load is the weight of the scaffold itself and includes the weight of all bases, frames, posts, tubes, clamps, guardrails, toe boards, ladders or stairs, platforms or planks, and any accessories.
            1. The dead load is estimated by multiplying the total number of scaffold parts by the weight of each part and taking the sum of the resulting values.
            2. You may not know the details of the dead load – so you can either ask the competent what the capacity is, or check scaffold tags – which should be at the entry point of the scaffold.
        3. Tags and Colors
            1. It is common practice and required in many jurisdictions in Canada and the United States, to use color-coded tags to convey important information.
            2. Tags should be placed at the entry point to a scaffold and have at least the following information:
                1. Date erected/tagged
                2. Date of last inspection and who inspected it

- The capacity of the scaffold

1. A green tag means the scaffold has been inspected and is safe for use.
2. A yellow tag tells you the scaffolding is safe under certain conditions – i.e. you must wear fall protection, or it may list specific hazards to watch for.
3. A red tag means the scaffold is not safe to use – either because it is still being built, the scaffold is damaged, or the weather or other factors, have made it unsafe for use.

Final Word

Scaffolds are designed to provide you with a safe elevated working surface. You must do your part to ensure your safety – assess the hazards, read the tags, wear the right PPE, and follow safe work procedures.