

# SAFETY AND HYGIENE REGULATIONS



Servei de Prevenció de Riscos Laborals  
UNIVERSITAT POLITÈCNICA DE CATALUNYA

## USE OF SCAFFOLDING

CODE **SHR 220** Date: **December 2010** Revision: **00** Page: **1 of 2**

*Royal Decree 2177/2004, of 12 November, which amends Royal Decree 1215/1997, of 18 July, establishing minimum health and safety regulations for operators of work equipment, regarding temporary work at height. (BOE 274, 13-11-2004)*

### 4.3.1 Objectives

Scaffolding must be duly planned, assembled and maintained to prevent it from collapsing or moving accidentally. The work platforms, planking and ladders must be assembled, sized, protected and used in such a way that they prevent people from falling or being exposed to falling objects. Consequently, the measurements must be adapted to the number of workers that will use the scaffolding.

### 4.3.2 Strength and stability calculations

When a note of the calculations for the chosen scaffolding is not available, or when the planned structural arrangement is not included in the note, the strength and stability must be calculated, unless the scaffolding is assembled according to a widely recognised standard arrangement.

### 4.3.3 Assembly, use and disassembly plan

Depending on the complexity of the chosen scaffolding, an assembly, use and disassembly plan is required. This plan and the calculation referred to in the previous section must be carried out by a person with university training qualifying him/her to perform these activities. A plan for general application could be used if it is complemented with aspects corresponding to the specific details of the scaffolding in question.

For the purposes of the provisions in the previous paragraph, the plan for assembly, use and disassembly is compulsory for the following types of scaffolding:

- Variable-level suspended platforms (operated manually or by a motorised mechanism), installed temporarily on a building or structure for specific tasks, and mast climbing work platforms.
- Scaffolding constructed from prefabricated components supported on bare ground, concrete floors, concrete slabs, cantilevers or other elements that have a height greater than six metres from the lower level of the support to the top of the scaffolding or that have horizontal elements that cross gaps and distances between supports of over eight metres. Trestle scaffolding is an exception to this point.
- Scaffolding installed outside, on flat roofs, domes, roofs or higher structures with a distance between the level of the scaffolding support and the level of the floor or ground that is above 24 metres.
- Movable access or work towers in which the work will be done at more than six metres from the point of operation to the ground.

However, when scaffolding is included in one of the aforementioned categories but has CE marking, a specific marketing regulation is applicable to it. In this case, the plan can be replaced by the manufacturer's or supplier's specific instructions on the assembly, use and disassembly of equipment, unless these operations are undertaken in a way or under conditions or circumstances that were not planned in the aforementioned instructions.

### 4.3.4 Movement

The elements that support the scaffolding must be protected against the risk of movement, by securing them to the supporting surface, using an anti-slip device, or applying any other solution that is equally effective. The surface that supports the scaffolding must have sufficient capacity. The stability of the scaffolding must be ensured. Unexpected movement of movable scaffolding during work at height must be prevented using suitable devices.

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Page: **2 of 2**

### 4.3.5 Use

The dimensions, form and arrangement of scaffolding platforms must be suitable for the type of work that will be undertaken and the loads that must be supported. They must also enable people to work and move safely. Scaffolding platforms must be assembled in such a way that their components do not move during normal use. There must be no dangerous gaps between the components of platforms and vertical devices for collective protection against falls.

### 4.3.6 Scaffolding that is not ready for use

When some parts of scaffolding are not ready for use, particularly during assembly, disassembly and alterations, these parts must be labelled with hazard warning signs, in accordance with Royal Decree 485/1997, of 14 April, on health and safety signs for the work place, and demarcated appropriately using physical elements that prevent access to the hazardous areas.

### 4.3.7 Supervision of assembly/disassembly/alteration and information and training of workers

Scaffolding can only be assembled, disassembled or altered substantially under the supervision of a person with university or professional education that qualifies them for this task, or by workers who have received suitable, specific training for the planned operations that enables them to address specific risks, in compliance with the provisions in Article 5, aimed in particular at the following:

- Understanding the plan for assembly, disassembly or alteration of the relevant scaffolding.
- Safety during assembly, disassembly or alteration of the relevant scaffolding.
- Measures to prevent the risk of people or objects falling.
- Safety measures in case of changes in weather conditions that could have a negative effect on the safety of the scaffolding.
- Acceptable load conditions.
- Any risk involved in the aforementioned operations of assembly, disassembly and alteration.

The affected workers and their supervisors must have a plan for assembly and disassembly, as stated in Section 4.3.3, including any instruction that it could contain.

When, in accordance with Section 4.3.3, a plan for assembly, use and disassembly is not required, the operations described in this section may be supervised by a person who has over two years' experience in this area, certified by the employer, and at least the corresponding basic level safety training, in accordance with the provisions of Section 1, Article 35 of the Regulations on Prevention Services approved by Royal Decree 39/1997 of 17 January.

### 4.3.8 Inspection of scaffolding

Scaffolding must be inspected by a person with a university or professional education that qualifies them for this activity:

- Before the scaffolding is put into use.
- Periodically during use.
- After any alterations, periods in which it is not used, exposure to bad weather conditions, seismic tremors, or any other circumstance that could have affected its strength or stability.

When, in accordance with Section 4.3.3, a plan for assembly, use and disassembly is not required, the operations described in this section can be supervised by a person who has over two years' experience in this area, certified by the employer, and at least the corresponding basic level safety training, in accordance with the provisions of Section 1, Article 35 of the Regulations on Prevention Services approved by Royal Decree 39/1997 of 17 January.