



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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General code for scaffold in construction

施工脚手架通用规范

(English Translation)

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1 General

1.0.1

In order to ensure the safety and applicability of construction scaffolding, this specification is formulated.

1.0.2

The selection, design, erection, use, dismantling, inspection and acceptance of construction scaffolding materials and components must comply with this specification.

1.0.3

Scaffolding shall be stable and reliable. To ensure the smooth progress and safety of construction, the following principles shall be observed:

- 1 Comply with national policies on resource conservation and utilization, environmental protection, disaster prevention and mitigation, and emergency management;
- 2 Guarantee personal, property and public safety;
- 3 Encourage technological innovation and management innovation of scaffolding.

1.0.4

Whether the technical methods and measures adopted in the project construction meet the requirements of this specification shall be judged by the relevant responsible parties. Among them, innovative technical methods and measures should be demonstrated and meet the performance requirements in this specification.

2 Basic regulations

2.0.1

The performance of scaffolding should meet the following requirements.

- 1 It should meet the design requirements of bearing capacity;
- 2 There should be no deformation affecting normal use;
- 3 It should meet the requirements for use and have safety protection functions;
- 4 Scaffolding attached to or supported on an engineering structure shall not damage the structure it is attached to or the structure supporting it.

2.0.2

Scaffolding should be designed according to the use function and environment.

2.0.3

Before the erection and dismantling of scaffolding, a special construction plan for the scaffolding shall be prepared according to the characteristics of the project, and shall be implemented after approval. The special construction plan shall include the following main contents:

- 1 Project overview and compilation basis;
- 2 Selection of the scaffolding type;
- 3 Types and specifications of materials, components and accessories;
- 4 Structural and constructional design, and construction drawings;
- 5 Structural design calculations;
- 6 Construction plan for erection and dismantling;
- 7 Technical requirements for erection and dismantling;
- 8 Quality control measures;
- 9 Safety control measures;
- 10 Contingency plans.

2.0.4

Before the erection and dismantling of scaffolding, a safety technical briefing on the special construction plan shall be given to the site management personnel and the operators.

2.0.5

During the use of scaffolding, its structural system should not be changed.

2.0.6

When the special construction plan for the scaffolding needs to be revised, the revised plan shall be implemented after approval.

3 Materials and components

3.0.1

The performance indicators of scaffolding materials and components should meet the needs of scaffolding use, and the quality should meet the current relevant national standards.

3.0.2

Scaffolding materials and components should have product quality certification documents.

3.0.3

The rods and structural parts used in a scaffold shall be matched to each other and shall meet the assembly method and construction requirements of the frame.

3.0.4

Scaffolding materials and components shall be inspected, classified, maintained and serviced in time during the service period; unqualified products shall be scrapped in time and recorded.

3.0.5

For materials and components whose properties cannot be determined through structural analysis, visual inspection and measurement inspection, their mechanical properties shall be determined through tests.

4.1 General design

4.1.1

The design of scaffolding shall adopt the limit state design method based on probability theory, and the calculation shall be carried out with partial factor design expressions.

4.1.2

The scaffolding structure should be designed according to the limit state of bearing capacity

and the limit state of normal use.

4.1.3

Scaffold foundations shall meet the following requirements:

- 1 It should be flat and solid, and should meet the requirements of bearing capacity and deformation;
- 2 Drainage measures should be set up, and the erection site should not be waterlogged;
- 3 Frost-heave prevention measures shall be taken during winter construction.

4.1.4

The strength and deformation of the engineering structure supporting the scaffold and the engineering structure attached to the scaffold shall be checked and calculated. When the checking calculation cannot meet the requirements for safe bearing, corresponding reinforcement measures shall be taken according to the checking calculation results.

4.2 Loads

4.2.1

The loads borne by a scaffold shall include permanent loads and variable loads.

4.2.2

The permanent loads of a scaffold shall include the following:

- 1 Self-weight of scaffolding structural parts;
- 2 Self-weight of scaffold boards, safety nets, railings and other accessories;
- 3 Self-weight of the objects supported by the scaffold;
- 4 Other permanent loads.

4.2.3

The variable loads of a scaffold shall include the following:

- 1 Construction load;
- 2 Wind load;
- 3 Other variable loads.

4.2.4

The standard values of the variable loads on scaffolding shall meet the following requirements:

- 1 The standard value of the construction load on the working scaffold shall be determined according to the actual situation, and shall not be lower than the provisions in Table 4.2.4-1;