

# Civil Construction and Quality Assurance Measures

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## Abstract

**Establish a leading group of civilized safety construction, with the project manager as the leader, and set up full-time safety officials. According to the rules and regulations of civilized safety construction formulated by the company, the post responsibility system of safety management shall be implemented. The construction personnel should understand the basic engineering situation, compile the construction deployment and construction plan, control the construction progress plan, draw up the construction plan, understand the relevant engineering technical and economic indicators, and carry out construction strictly in accordance with the specifications, so as to ensure the safety and reliability of the project quality.**

## Keywords

**Civilized Construction; Safety Civilization; Quality Management; Quality Control.**

## 1. Introduction

Establish a leading group of civilized safety construction, with the project manager as the leader, and set up full-time safety officials. According to the rules and regulations of civilized safety construction formulated by the company, the post responsibility system of safety management shall be implemented. The construction personnel should understand the basic engineering situation, compile the construction deployment and construction plan, control the construction progress plan, draw up the construction plan, understand the relevant engineering technical and economic indicators, and carry out construction strictly in accordance with the specifications, so as to ensure the safety and reliability of the project quality.

## 2. Safe and Civilized Construction

Establish a leading group of civilized safety construction, with the project manager as the leader, and set up full-time safety officials. According to the rules and regulations of civilized safety construction formulated by the company, the post responsibility system of safety management shall be implemented.

(1) precautions for safe and civilized construction: before earthwork construction, understand residents' opinions and put forward practical solutions to ensure the normal life of the surrounding residents. Before earthwork excavation, it should be observed at any time. If there is a sudden change in the observed value, it should immediately analyze the reasons with the relevant personnel and take corresponding emergency measures. Specialized personnel are set up to regularly inspect and observe the foundation pit. If problems are found, they should report to the higher authorities immediately in order to prevent accidents. It is strictly forbidden to place sundries around the pit. Security technology should be handed over and relevant records should be provided when assigning tasks. Safety rules should be strictly enforced during construction. Smoking is prohibited at the construction site; safety helmet must be worn at the site for personal safety.

(2) Temporary power utilities: Strictly implement the power consumption system and the responsibility system of managers. Organizational design and safety technology of temporary

power construction are well done and recorded. All motor tools, machinery and electrical equipment must be operated and repaired by specialized electricians or licensed operators, and non-electricians or operators shall not use mechanical and electrical equipment at will. The electrician should do a good job of on-duty maintenance. You can't use unsafe appliances at will. Temporary electricity consumption in the field operation area and living area shall be managed by designated full-time electricians. Electricians must hold job certificates and prohibit indiscriminate use of electricity by individuals. Personnel should be organized to manage the equipment used on site. All cables in the construction site shall be inspected in accordance with the standards without damage or rupture. Each distribution box must have a leakage protector.

(3) Machinery management measures: formulate rules for on-site machinery management, and arrange for special personnel to be responsible for the management. All machinery must be operated and repaired by a full-time operator who must hold a license and operate in accordance with the operating rules. It is strictly forbidden for non-operators to use machinery at will, to do a good job of safety technology for operators, and to do a good job of working records. All machines must be inspected daily to ensure the safe use of machinery and equipment, and operators should also make good succession records. Electrical equipment should be used with caution. The protective equipment of steel bar processing machinery should be in good condition, the professionals should operate according to the safety operation rules, the treatment site should be cleaned up, the mechanical parts should be lubricated well and the grounding should be reliable. Safety measures should be taken for large-scale power utilities. Operators check three times a day before, during and after shifts, and immediately stop operation and repair the problems. Dealing with hidden dangers is strictly prohibited.

(4) Material management measures: Strictly implement the material management system on the spot, and implement the post responsibility system of material and equipment management. According to the unified planning of the site, all kinds of materials are stored and managed. The incoming materials are stored according to the requirements. The open storage materials are stacked according to varieties, specifications, classifications and stacking. The codes are arranged neatly and the marking work is done well. The information in the collection should be classified clearly, the code should be arranged neatly, the identification should be obvious, and the location of the information should be easy to receive and receive. Material used on site must have qualification certificate. Material personnel should do a good job in collecting material qualification certificate. When carrying materials, they should be handled lightly to reduce noise pollution.

### **3. Matters Needing Attention in Construction**

In the construction process should be continuously discharged without interruption. The main structure engineering should have no anti-floating conditions, the drainage should not stop, and the drainage should be reduced. The disassembly and maintenance of wiring for drainage machinery and equipment must be operated by electricians, and non-electric operation is strictly prohibited. In the process of pipe well construction, after pipe well is formed in the process of construction, it should be installed in time. Due to the limitation of conditions, when installation is not timely, safety protection facilities and safety signs, such as enclosure structure and guardrail, must be installed. Settlement cable shall not be damaged by friction with shaft lining or other sharp objects. In addition to injecting lubricant into the wear resistance of the lock holes, the inclined forward concrete cast-in-place piles can reduce the wear resistance of the lock holes. Iron wedges or hardwood wedges can drive the lock holes at the low end to prevent mud and sand blocking. The concrete cast-in-place pile is inserted into the solid pile, and the top of the pile is cut into a certain angle to exert a certain force. Inclined steel sheet piles gradually returned to normal. Measures should be taken to prevent the

improper insertion of steel sheet piles leading to the leakage of the lock body, leading to the deformation and leakage of the lock body. The remedial measure is to sprinkle fine slag on the cofferdam of the leakage outlet. When the leakage falls to the height of the leakage, the slag will plug the leakage.

#### 4. Quality Custody Measures

The construction personnel should understand the basic engineering situation, compile the construction deployment and construction plan, control the construction progress plan, draw up the construction plan, understand the relevant engineering technical and economic indicators, and carry out construction strictly in accordance with the specifications, so as to ensure the safety and reliability of the project quality. Model Guidelines: For each sub-project, the model system is implemented. Unified business requirements, clear quality objectives, after supervision and Party A's approval, then large-scale elimination of various quality problems. At the working level, the principle of high quality and high price is to create good product awareness.

Strict implementation of the site safety and fire control management system, the implementation of management personnel post responsibility system. Open fire is prohibited in construction sites. If necessary, it must apply to the person in charge of the site and take fire prevention measures. Visas are required for welding and special persons are sent to watch the fire. Smoking is prohibited at the construction site. It is forbidden to move some equipment privately. Flammable materials shall not be used in all temporary buildings built on site.

"Three Inspection System". Self-inspection: after completion of construction, organize self-inspection; Handover inspection: after completion of self-inspection, the foreman inspects the completion process: special inspection: quality inspector of Project Manager Department inspects the working procedures completed by team. After the third inspection, the quality inspection and evaluation form shall be filled out by the foreman and approved by the full-time quality inspector. Finally, project supervision or Party A inspection is required. Inspection and acceptance system for covert projects: the covert projects are organized by the technical personnel in charge of the project, and the quality inspectors, foremen and team leaders participate in the inspection, and make detailed written records. All hidden projects must be signed by Party A, supervision and design can be carried out in the next process. Engineers and engineers lead engineers and technicians at all levels to conduct spot checks from time to time to deal with problems.

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