

## Discussion on Problems and Countermeasures in Management of Industrial and Civil Construction Engineering

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### 1 The Importance of Construction Management of Industrial and Civil Construction Engineering

Whether the management of industrial and civil construction engineering is in place directly affects the safety, quality, cost and duration of constructional engineering, even the credibility of the entire enterprise and the whole industry. Engineering construction needs certain technical and economic conditions, which have to rely on the fine management to carry out unified organization and coordination. With the continuous development of our country's economy, the extensive use of new materials and technologies will also raise requirement for updating management.

### 2 Main Problems in Construction Management of Industrial and Civil Construction Engineering

#### 2.1 Unsound Management System

At present, some construction enterprises lack long-term vision, only value the immediate interests, and some are short of a complete construction management system. Those who have made relevant rules and regulations leave them useless without any implementation. Some of the rules and regulations mismatch the specific conditions of the enterprises, thus seriously disconnected with the reality while being implemented. These factors have greatly hindered the effective

management of engineering construction, and ultimately affect the benign construction management.

#### 2.2 Numerous Problems Affecting Construction Safety and Insufficient Attention to Safety Management

Current requirements for building volume, height and function are much higher than those in the past. Safety risks in the process of construction are more and more great, and many safety accidents caused by various factors are exposed from time to time, even malignant and extra-large safety accidents. Therefore, we must strengthen the safety management of the construction site, put all the safety management work in the first place and turn it into practice. However, from the current status quo of view, most of the constructional engineering in our country pays more attention to economic benefit and time benefit in the process of management, which is embodied in the following aspects: Security management personnel are understaffed or unprofessional; Special funds for security are insufficient; Before taking on the job, workers didn't well receive New Workers Safety Education, nor did they well do technical disclosure, and special operation personnel don't possess related certificates; In the process of construction, there is no safety personnel tracking and supervising the operation condition, so that any illegal operation can not be corrected and stopped in time; Mechanical equipment is not

**Abstract:** Nearly four decades after the reform and opening-up, China's economy has grown from the brink of collapse to the world's second-largest economy. Along with the rapid economic growth, construction industry has also experienced great development. Industrial and civil construction engineering is an important part of construction industry. Due to the trivialness of construction engineering itself and the extensive use of new materials and technologies, engineering management faces great difficulty. In view of this, this paper, in order to give some reference to relevant work, discusses the existing problems and countermeasures in the management of industrial and civil construction engineering.

**Key words:** Industrial and civil construction engineering; Construction management; Existing problems; Countermeasures

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regularly maintained according to relevant regulations, and using equipment in poor condition even become normal; Non-standard and low-quality steel tubes, fasteners, safety nets and other materials flood the market, and the construction units choose to use non-standard materials and equipment for the pursuit of efficiency; In order to shorten the construction period and save the cost, the construction units fail to strictly organize the construction in accordance with the plan; Industry standards update so slowly that they are not synchronized with the reality, for example, the new technology of pulley-clip steel pipe scaffold has been used for several years due to its convenient installation and low cost. However, so far, only in Guangdong province has the local standard been implemented since January 1, 2017. All these problems will eventually lead to huge security risks in engineering construction.

### 2.3 Unscientific Management of Material, Technology and Equipment

With the development of science and technology, the cost of manpower is increasing, thus promoting the rapid development of mechanization, and the mechanical force has replaced most of the manpower. In modern building construction, massive use of new materials, technologies and equipment provides guarantees for constructional engineering to be more comfortable, greener, more energy saving and environmental protection. However, due to the improper management of new materials, either too much attention to function, or too much attention to benefit, the construction materials did not play its due value, but affected the quality of the project instead.

### 2.4 Some Problems Existing in Personnel Training Management

In modern construction industry, super engineering can be found everywhere. These projects are large in volume, tight in construction period, wide in the use of manpower and material resources, and multiple types of work and different units operate collaboratively and simultaneously, which brings difficulties to personnel management. In order to make construction operation more professional and standard, managerial personnel and constructors must be trained.

Training and learning especially about the constantly emerging new materials, technologies and equipment must be constantly strengthened. Only by improving the technical quality of managerial personnel, mastering and familiar with new laws and regulations, can we make correct management and guidance to workers so as to improve the professional skill level of the construction team and raise the construction management level.

## 3 Specific Measures to Improve the Management of Industrial and Civil Construction Engineering

### 3.1 Strengthening Quality Management of Industrial and Civil Construction Engineering

In the increasingly fierce market competition, if construction enterprises want to steadily develop, they must well control the construction quality, constantly strengthen the management of it, well manage the construction quality of main building structure and its using function. As for common quality problems in the construction, construction enterprises need to take precautions and constantly reinforce the learning of new technologies and process, improve the construction and management level so as to raise the quality level of construction and obtain more competitiveness.

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### 3.2 Further Strengthening the Safety Management of Construction Site

Safety management has a decisive influence on the construction of the

whole project. Once the safety problems arise, it will not only pose a threat to the safety of the construction personnel, but also bring unnecessary economic losses and even immeasurable negative social effects to the enterprises. Therefore, it is necessary to further strengthen the safety management of construction site. First of all, constructors should regularly receive safety education and training, participate in on-site safety evacuation drills, so that they can respond more calmly and reasonably when safety accidents occurs. Secondly, before full scale construction, protective measures for constructors should be carefully checked. Once the protective measures are found not to be put in place, serious criticism and correction must be put forward. Thirdly, there must be full-time safety officers walking around during the construction process. Any operations found illegal must be promptly corrected and stopped. Finally, we should standardize the security risk management process, establish a broad and comprehensive risk list and build a standard risk management procedure.

### 3.3 Scientific Management of Construction Materials and Equipment

As for the management of construction materials, above all we must control their qualities, and select new materials according to the actual situation of the project rather than wasting resources to achieve certain results. The management of construction equipment mainly includes the installation, regular maintenance and inspection of the machinery, training and guidance on the use of technologies. Relevant managerial personnel should give guidance at the construction site, standardize the operation of the constructors so as to ensure the normal and safe operation of the equipment.

## 4 Conclusion

In conclusion, with the rapid development of economy and urbanization, in order to meet the housing and work needs brought by highly concentrated urban population, the number of industrial and civil construction engineering progressively increases, and people's quality of life continues to improve. More and more people begin to pay attention to the inner quality of buildings. Therefore, management should pay attention to

the inner quality of buildings. Therefore, management should pay attention to everything concerned. Improving the construction quality of industrial and civil construction engineering is a great cause that will benefit both current and future generations.

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