

# Discussion on installation quality Control of Building Mechanical and Electrical equipment

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**key words** Construction Industry; Mechanical and Electrical Equipment; Quality.

**Abstract** The development of construction industry has been stagnant in the Chinese market, and various problems emerge in endlessly, especially in the aspect of mechanical and electrical equipment installation quality control. People pay close attention to this problem. It can even be said that this problem is light in the construction industry, it is related to the quality of construction engineering, and involves whether the construction function can be realized safely. In view of the advantages and disadvantages of mechanical and electrical equipment installation engineering, this paper deeply discusses and interprets the construction quality of the safety process of mechanical and electrical equipment, and also thinks about the existing problems.

## 1. Introduction

The development of science and technology leads to the continuous renewal and reform of the society. A variety of technologies and products appear in the market one after another, and new construction mechanical and electrical equipment teams emerge in endlessly, especially the construction team with distinctive technical characteristics, which has fierce competition in the market of our country. Moreover, with the development of science and technology, technology, equipment and construction methods are constantly updated and iterated, which is very different from the past technology, equipment and construction methods. However, a technology that mechanical and electrical equipment installation engineering has had since the rise of the construction industry has always existed and has a heavy position. It lies between decoration and structural engineering. Therefore, it is obvious that it affects the quality of the whole project, and the quality of the mechanical and electrical equipment installation project is not indifferent to the use and scientific operation of the building. Therefore, the relevant construction organs severely control the construction enterprises and crack down on the construction enterprises that violate the law, strictly control the unqualified construction projects, lay the foundation for the national construction industry and consolidate the status of the installation quality of the construction mechanical and electrical equipment.

## 2. Mechanical and electrical equipment installation engineering with characteristics

Different from other related building technologies, mechanical and electrical equipment installation engineering has a wide field, strong links between technologies, and a high degree of versatility. It is mainly used in civil buildings and industrial buildings, which are out of the state of "hot sale" in the Chinese market. With the improvement of scientific and technological innovation and construction technology, and the gradual urbanization of many cities and towns, there are more and more tall buildings, so there are more and more mechanical and electrical equipment installation projects. There is a lot of benefit space in this market, and rich resources are also the eyes of the mechanical and electrical equipment installation engineering team. The use of it is becoming more and more strict. The unit attaches great importance to this aspect and strictly controls it. Therefore, the construction units of construction enterprises need to make new construction plans and strategies according to different terrain and environment, and plan ahead of time. In addition, with the construction will also encounter a variety of unprecedented conditions and difficulties, the construction team needs to update their own construction equipment and maintain and inspect. Comparing the construction quality of mechanical and electrical equipment installation engineering

with that of mechanical and electrical equipment engineering, there are some problems in the acceptance process and quality evaluation method of mechanical and electrical equipment engineering construction quality.

### **3. On the Problems of the Installation of the Mechanical and Electrical Equipment in the Building**

#### **3.1 Irregular installation process of some mechanical and electrical equipment**

Since the rapid development of society, the problems of building mechanical and electrical equipment installation emerge in endlessly. The most influential problem is that the process is not standardized, which will cause many unsafe construction accidents, resulting in the loss of both people and money. Some installation and construction personnel may think that their own installation technology has reached the point of pure fire, so the installation of mechanical and electrical equipment in the process of uneasy formal operation sequence steps, directly arbitrary, and even do not think that the installation of mechanical and electrical equipment is not accurate enough, and caused safety accidents, sometimes the qualitative thinking is recycled, burying the hidden dangers of the work for the constructors.

#### **3.2 Installation of mechanical and electrical equipment for non - standard electrical tools.**

The rapid development of science and technology has led to the rapid development of the electrical industry in our country. Therefore, the production technology of electrical tools has also reached the peak and extreme level. The overwhelming electrical tools are full of eyes in the shopping malls, but they are very chaotic in the market, such as price, trademark, quality, model and so on. In the process of building mechanical and electrical equipment, electrical tools are indispensable. As far as the current situation is concerned, the models of electrical tools on the market are very chaotic, there is no unified hard requirements, the accuracy of electrical tools is not up to standard, and a large number of counterfeit products have appeared in the market, which has caused problems to the actual customers. Measurable losses, which also bring huge construction losses to the builders who use shoddy electrical tools, resulting in many construction places exist unqualified phenomenon, if the use of electrical tools for mechanical and electrical equipment installation project is not standardized, then the quality of the project will be greatly threatened, then the decline in the reputation of the electrical tools market also implicated the quality of mechanical and electrical equipment installation project, resulting in great losses to the market economy.

### **4. Planning scheme for installation quality control of mechanical and electrical equipment**

#### **4.1 Quality Control in the preparation stage of Mechanical and Electrical equipment installation Engineering**

After signing the project construction contract, the contractor and the owner shall hand over the required construction drawings and plan plans and technical materials to the project manager. After the project manager has examined and verified the feasibility of the construction personnel's plan plan, the safety and quality prediction has reached the standard, and after repeated inspection and test of its quality, the site construction can be inspected. If the problems and loopholes are found in time, the project manager can be reported to the project manager. Then carry on the specific situation discussion, through the effective communication again to design the bottom, finally forms the final record. The project manager of the project must be in accordance with the contract and design requirements, and arrive at the quality of the project, but also have something to do with it. Therefore, sudden emergency measures. In addition, it is necessary to formulate a planned plan for project quality control to ensure a high degree of feasibility, and this inspection can be inspected by the management department. The leaders of the construction units also need to carry out occasional technical training for the organizational staff, enhance their psychology of paying attention to quality, and ensure that they should implement every step in place and highly complete the

construction task. Before the construction, the construction leader should assign every detail in place, and seriously instruct the construction personnel, different specialties and techniques to cooperate with each other, communicate effectively during the construction, promote the accuracy of the construction, and prevent the construction. Unexpected situation, reduce the accident rate and cost of installation project.

#### **4.2 Quality Control in the Installation of Mechanical and Electrical Equipment**

Carry on the field construction according to the design diagram and the plan plan and other related documents that have been examined and approved. If the construction personnel find that there are problems in the construction design drawings, we must take effective means to save them, remember not to deal with the original design drawings and plans at will, and can not change the original design drawings and plans arbitrarily. In the process of construction, a supervision post should also be set up, the supervisor should check the construction progress and construction accuracy all the time, prevent the effect after construction from being very different from the construction, and formulate the quality control program of the installation project, excavate and take the invisible engineering data deeply and conscientiously. If any of the relevant personnel can not carry out the next section without the signature of the relevant personnel, so the construction log of the construction should be parallel to the construction process.

#### **4.3 Acceptance of the installation process of the electromechanical equipment**

After the completion of the construction task, the construction unit should first carry out an effective inspection of the work completed by itself, and then submit the report and inspection and evaluation of the completed construction unit to the relevant organ unit. The leader of the construction unit should fulfill his construction obligations, for example, supervise the project with other engineers, encounter bottlenecks when the engineer is working in the construction, or communicate and solve the problem in a timely and effective manner when the problem is found. After the relevant departments approve the submitted report, the leaders of the construction unit will be in place.

### **5. Prosecution of the quality of the acceptance stage of the completion of the mechanical and electrical equipment installation project**

Before the acceptance of all the work, the inspection department should carry out the inspection and test of the installation works of each unit, must carefully and repeatedly inspect, and should not neglect the details carelessly. The main contents of the inspection are as follows: single machine trial operation, equipment adjustment, joint trial operation, etc., the relevant responsible personnel shall record the inspection process and results, and the construction personnel shall then number the documents of the completed construction project. When all the documents are completed, they will be handed over to the management of the company for archiving.

### **6. Conclusion:**

The installation project of building mechanical and electrical equipment has always been a relatively complicated technical work, it involves a lot of working procedures, the field is very wide, so the personnel in the construction field should attach great importance to its future development trend, have an important understanding of it, should not be careless and indifferent attitude. The sense of responsibility in the construction is indispensable, we should have a deep understanding of the safety of the building, the construction personnel should master the scientific construction technology and quality control methods, adapt to the construction environment, and implement the specific responsibility to everyone. Ensure the quality of the project, improve the level of construction personnel, so that the future construction mechanical and electrical equipment can be obtained To the maximum optimization.

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