# Exploration of safety management problems and countermeasures in the construction of housing projects

Xie Qiang

Guangxi Construction Engineering Group Fourth Construction Engineering Company Limited, Guangxi 541000

\_\_\_\_\_

## **Abstract:**

In the field of modern construction, quality and safety have always been the most important concern of construction units, and the quality and safety of housing construction projects also have a certain link, through the quality and safety management of housing construction projects, not only can improve the market competitiveness of construction enterprises, but also an important means to obtain high profits. Therefore, building construction enterprises must actively improve construction safety management, understand the potential safety risks of each link, improve the safety management level of housing projects, and promote the long-term development of China's construction enterprises.

# **Keywords:**

building construction; safety management; problems; countermeasures

\_\_\_\_\_

# 1. The significance of practicing construction safety management

The construction implementation of safety management can guarantee the safety of construction personnel to a certain extent, and safety management not only for their own staff wood leaves including the surrounding residents and their living environment, for example: in the construction of scaffolding on the installation of green screen, in addition to protect the construction personnel if the fall can slow down the rate of descent, but also to prevent the garbage and debris inside the building to the passing pedestrians. Because safety management involves all aspects of site management, so the a need for managers of the construction site and the surrounding environment to carry out a detailed analysis of all the risk factors in place and take measures to eliminate the risk factors affecting the surrounding environment and personnel safety. Therefore, the implementation of construction safety management is to ensure the quality of construction projects and personnel life safety focus.

# 2. Problems and deficiencies in security management

## 2.1 Low awareness of safety management

The developers and builders of housing projects are profit-oriented, China has developed a market economy and most of the companies in the construction industry are market-oriented with the ultimate aim of getting economic benefits. The disadvantage of the market economy is that it is regulated by the market, which leads to the fact that most of the construction companies are focusing on economic benefits and just on the quality of completion of the project and better cost savings. This leads to the person in charge of the project and on-site management personnel do not pay attention to safety management, due to the upper-level departments do not paying attention to safety management, which leads to the construction personnel do not put their own safety in mind, do not pay attention to the norms in the daily operation of construction and machinery and equipment, which all seriously affect the implementation of safety management in the construction process. In addition, also due to the construction personnel's own ability is not strong, not the reason of professional training, cannot realize how to maintain



their own safety in the work. So, the project construction safety problems are more and more obvious in the construction.

#### 2.2 Poor standardization of specific operations

Construction personnel construction process operation is not standardized. Before the construction personnel formally work, first of all, the technical personnel need to do a good job of technical briefing, and the construction personnel also need to understand the technology to be used and the construction process. But very often, the management personnel did not prepare the safety protection devices in place, and construction personnel in order to catch up with the schedule, in the case of unprotected grasping of the work, which may cause accidents in the construction; In addition, there will be a lot of materials to be used in the construction, in the process of construction will produce a lot of construction waste, the construction personnel should be regularly cleaned up the construction site and the materials will be organized in a standardized manner. It is necessary to consider all aspects of the construction site in a comprehensive and detailed manner and to make a good construction protection program.

## 2.3 The construction market industry needs benign guidance from the state

The construction market industry is mainly affected by the market economy, in the case of some enterprises that only focus on economic interests and take illegal measures, the need for the state of the construction market should be benign, prompting the construction industry to make changes. First of all, the department building materials factory adopts the situation of substandard materials packaging and processing, and sells them to the construction unit at a low price; or directly counterfeits the genuine products and sells them to the construction unit directly under the label. In addition, there are construction units and counterfeiters and vendors for cooperating, jointly hoodwinking developers to make money illegal payments. All these have seriously affected the development of the construction market industry and brought great safety hazards to the construction. Finally, there is also illegal subcontracting after the contractor obtains the construction project, in addition, there are construction units in order to obtain the project, signing yin and yang contracts with the relevant units, letting out the economic benefits can only be made up for by withholding the way of construction materials, so that are disturbing the behavior of the construction market, for the safety of the construction of the buried a great hidden danger of safety.

## 3 Improvement measures

# 3.1 Installation of additional security facilities and increased security training

To add the part of safety facilities in the construction site budget, standardizing and setting up reasonable safety facilities is the basis for maintaining the life safety of construction workers, the actual situation of the construction site report safety management personnel, calculating the number of safety equipment needed and leave a surplus, equipment damage can be timely replenishment. For example: the number of helmets needed to count clearly, different staff need helmets of different styles, and leave some helmets to prevent accidents. In addition, regular safety training for construction staff, requiring construction staff to be trained and pass the test before they can work, safety assessment includes the construction process and after work. Construction workers often live on the construction site, in the construction process to eliminate alcohol and smoking, the operation of large equipment and machinery to pay attention to safety, and after work should also pay attention to fire safety. Managers should pay attention to and arrange for personnel to carry out occasional inspections. The construction site needs to be equipped with basic first-aid tools and first-aid medicines. Finally, some types of work require construction personnel to be licensed.

#### 3.2 Raising safety awareness and putting safety management in place.

The staff at the construction site, from the construction site manager to the grassroots construction workers, should raise their safety awareness. The site manager should implement safety management in the management personnel, and the management personnel should inculcate the awareness of safe construction into the construction personnel. In daily construction, firstly, before construction, the technicians should give the construction personnel a good job of technical briefing to ensure that the construction personnel understand the construction process before construction; secondly, during the

construction process, the need for managers and supervisors to inspect the construction site at any time, to ensure that the site of the materials and equipment are properly stored, there is no safety problem in the construction process; and finally, in the daily life of the construction personnel, we must put an end to smoking and drinking, to prevent fires and other situations. Finally, in the daily life of construction workers, we should eliminate the problem of smoking and drinking to prevent fire and other situations. To effectively implement safety management into the actual construction, we need to strengthen the management and implementation of safety management provisions into the daily code of conduct. It is necessary to establish a safety management system, set up a safety management department, and clearly define the safety management responsibilities of each staff member. Regularly organize safety lectures and sharing sessions. Let the construction staff understand the importance of safe construction, let the staff obey the daily safety management, and improve their own safety precautionary awareness. This is not only conducive to ensuring the health and safety of construction personnel but also standardizes the operating procedures of construction personnel to ensure the quality of construction.

#### 3.3 Improving Engineering Safety Management Program

(1) A sound engineering safety management program is a prerequisite for ensuring the life and health of construction personnel and the quality of construction projects. In addition, the management personnel in the daily construction process found problems, timely adjustment of the safety management program, to ensure that the construction personnel according to the safety management program for construction; (2) the site manager will be responsible for the various management personnel is clearly divided, to avoid unclear responsibilities caused by the management of the problem, in addition to the occurrence of safety accidents, and then track down the responsible body is also clear and unambiguous.

#### 3.4 Innovation in safety management methods

The construction industry is developing in the direction of higher and more suitable for modernization, and in more complex situations, it is necessary to introduce new technologies to better serve the construction industry, for example: the introduction of BIM technology, technology can simulate the actual construction process into the special software, which can set up threedimensional model, and it is convenient to follow up on the construction site at any time. It strengthens the control of the site and facilitates the elimination of safety hazards at any time. We should further concentrate our efforts on improving safety production technology and increasing the cost of investment in scientific research, so as to make the storage of information on safety production more complete and to make the safety production more normal and safer in terms of operation.

# 3.5 Establishing and improving the safety management system in the process of building construction

Generally speaking, a sound safety management system consists of the following three parts: as a manager first of all to draw up the safety measures plan. Safety measures contained in the plan of safety protection programs, need to be developed before the construction is carried out, so as to maximize the control of construction accidents; Secondly, the construction process, many safety issues can not be directly understood, the need to press the relevant safety inspection system to investigate and timely solution to the inspection of safety hazards; Finally, if casualties occur after the accident, the need for onsite management personnel to take timely first aid measures, and timely report the accident to the Finally, in case of casualty accidents, it is necessary for the site management to take first-aid measures in time, report the accidents to the head office in time, and establish a perfect system to investigate and deal with the accidents in the morning. In addition, the management needs to investigate the causes and processes of the accidents in time after the accidents and draw lessons from the experience to prevent such safety accidents from happening again.

#### 3.6 Enhance supervision and give full play to the role of supervisory units.

With the development of socialism with Chinese characteristics, our country has improved and improved in all aspects, but no matter what kind of work we do, there must be a corresponding supervision and management system. Supervision is an important factor to ensure the efficiency of work to improve product quality. Especially for the implementation of construction projects, we must ensure the existence of a safety management system and perfect, only effective safety management system



to ensure that the construction staff of the method of standardization, and in the process of construction of the links in the primary and secondary, step by step clear.

## Conclusion

If the construction industry is to develop well, it is necessary to pay attention not only to the economic benefits but also to various safety issues in construction. Only with safety as the basis, can ensure the sustainability of development. This requires construction unit managers to actively promote safety management, and put the concept of safety management into practice, deep into the construction team; construction personnel should pay attention to their own education, safety and practical work together.

\_\_\_\_\_

## References:

[1] Chen Zhimeng. Establishment of construction safety management mode for building engineering projects[J]. Building Materials and Decoration, 2017 (48): 197-198.

[2] Wang Yubin. Analysis of problems and treatment countermeasures in construction safety management of building projects[J]. Shandong industrial technology, 2019(10):105.

[3] Chen Zhibiao. Exploration of the importance and measures of safety management of building construction[J]. Building Materials and Decoration, 2018(48):122-123.