

REVIEW

Quality Problems and Countermeasures in Construction Process

Chao Xu* Guoping Chen Honghui Hua

Ningbo College Of Health Sciences, Zhejiang Ningbo, 315100, China

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ABSTRACT

Quality is the life of architecture. Without quality there is nothing. Engineering projects have the characteristics of large investment and long construction period, so the quality of construction projects must be strictly controlled. The control of construction quality of engineering projects is the quality control of the whole process and the participation of all employees. It is the implementation of construction engineering quality regulations and mandatory standards, the correct configuration of construction production management elements and the use of scientific management methods to achieve the expected use function of engineering projects And quality standards, deliver the owner a satisfactory quality project. Most of the quality problems of construction projects appear in the construction stage. Therefore, we must strictly control the quality in project construction, strengthen the whole process management from the organization and management, find a project quality management system suitable for China's national conditions, and be able to eliminate the hidden quality hazards in the project in time to ensure the project The construction project can meet the target requirements, and the project quality can be effectively controlled. This article mainly analyzes the current problems affecting the construction quality, combined with the actual analysis, and then find some countermeasures to solve the problem.

1. Introduction

The quality of the construction products completed by the construction unit will seriously affect the reputation and development of the enterprise, and more importantly, it will lay a lot of hidden safety hazards for the owners who use the project. Different from other products, construction products have the characteristics of one-off and irreversibility. If quality problems are found during the completion of construction, huge economic losses will result. In the construction process, many of the structural safety impacts are hidden works. Once the construction is completed, it becomes diffi-

cult to check the quality again ^[1]. In recent years, there have been frequent quality accidents in the engineering industry, ranging from structural cracks to tilting and collapsing buildings, which has brought many negative effects. The construction industry is life-threatening, so construction quality issues need to be strictly controlled. In view of the importance of construction quality to the entire building, this paper studies the quality problems in the construction process of the construction project, analyzes the causes of them, and proposes targeted countermeasures, aimed at improving the quality control during the construction process ^[2].

*Corresponding Author:

Chao Xu,

Ningbo College Of Health Sciences, Zhejiang Ningbo, 315100, China;

Email: 476044192@qq.com

2. Quality Management Problems in the Construction Process of Construction Projects

At present, there are many construction units who are blindly pursuing benefits and rushing to the construction period, while ignoring the impact of the quality of the construction process on the later use and the problems that arise. Not paying attention to cultivating a good reputation of the enterprise will lead to the survival of the enterprise in the construction industry. Lack of perfect project management system, and the level of project site management personnel is uneven^[3]. In the actual construction, there are construction units that violate the design specifications and do not carry out the construction according to the construction drawings. The acceptance of concealed works is not standardized, and the most stringent standards are not followed.

2.1 Weak Awareness of Quality Management

At present, there are many construction units who are blindly pursuing benefits and rushing to the construction period, while ignoring the impact of the quality of the construction process on the later use and the problems that arise. Not paying attention to cultivating a good reputation of the enterprise will lead to the survival of the enterprise in the construction industry. Lack of perfect project management system, and the level of project site management personnel is uneven. In the actual construction, there are construction units that violate the design specifications and do not carry out the construction according to the construction drawings. The acceptance of concealed works is not standardized, and the most stringent standards are not followed.

2.2 Incomplete Construction Technology Disclosure

Before the project starts, the project technical management personnel and on-site construction personnel must have a full understanding of the project design specifications and specific technical requirements, and master the construction process requirements, construction difficulties and key points. However, this is often the easiest thing for the construction unit to ignore, which leads to blind start without being familiar with the entire construction requirements, which leads to the quality problems caused by the construction process during the construction process^[4].

2.3 The Quality of Building Materials is Unqualified

Building materials are the key substances that constitute

building products. The quality of materials will directly affect the quality of building products. Now due to the complexity of the building materials market, various quality building materials will appear. Now there are many quality accidents due to the problem of building materials, which requires that when choosing building materials, materials that meet the design specifications and qualified quality must be selected^[5].

2.4 Imperfect Construction Technology

The construction technology used in the construction project is backward, the process level cannot meet the quality requirements, the on-site management level is low, and an effective quality assurance system and quality management system have not been formed. For a long time, construction enterprises, especially construction enterprises, have been treated as labor-intensive enterprises and considered to be industries with low technical content and low comprehensive manpower^[6]. The current situation is also the same. In order to save costs, most companies neglect the cultivation of technical talents, and often a large number of migrant workers act as operational workers on the front line. Many companies spare no effort to reduce on-site technical personnel, and even cut corners in response to the profit pressure of winning bids at low prices. This has seriously affected the development of the enterprise itself, and there are hidden dangers in construction quality and construction safety.

3. Countermeasures for Problems in Quality Management of Construction Projects

Architectural engineering construction is a process that turns the blueprint of design into an actual existence. The construction phase is the key to the quality of the project. Therefore, the quality control of the construction project during the construction phase is the key to control the quality of the entire construction project. However, in actual operation, how can we control the quality of construction projects?

3.1 Establish and Improve the Quality Management System

To do a good job of quality control of construction projects, we must first establish a quality management system, such as how to report and deal with construction quality accidents, and also to implement these systems specifically, not to make the system useless. Observe from top to bottom. The construction quality is not qualified due to incorrect construction methods or even accidents. Only by guaranteeing the quality of the construction process can

the quality of the final construction product be ensured. Adhere to “quality is life”, we must adhere to “quality is life” in the whole process, strictly control every link, and not let go of any hidden danger; adhere to “people-oriented”, many high-quality construction projects in reality are created by people. Therefore, in quality control, people should be the primary control; adhere to the “prevention-oriented”, from the inspection of product quality to the inspection of the quality of the working process, the inspection of the quality of the process, and the inspection of hidden projects^[7].

3.2 Establish Standardized Technical Disclosure Procedures

Before the construction of each sub-project, the professionals of the project department shall, in accordance with the requirements of technical disclosure, complete the disclosure of construction specifications, operating procedures, and precautions to the directly operated teams and groups, and make technical disclosure records as required. The activities of the whole process of project implementation include the key processes and special processes of the project, as well as the parts prone to common quality problems, which should be technically explained. The technical disclosure of construction should be based on the characteristics of the project, strictly implement the engineering construction procedures, and adhere to the reasonable construction procedures, construction sequence and construction technology.

3.3 The Contractor Should Do a Good Job of Quality Control of the Materials

If the materials used in the project are unqualified, even if the construction process is high and the equipment is refined, the products produced are still unqualified. In order to ensure the safety, economy, beauty and durability of the project, our project management personnel must ensure that Materials with corresponding basic properties are used in engineering. Therefore, strengthening the control of material quality is an important guarantee for improving the quality of the project. First, the contractor selects material samples (at least three or more) that meet the project quality requirements according to the construction contract agreement and construction design drawings requirements, and submits to the project management agency for on-site signature confirmation, and develops a strict material sampling and delivery inspection system^[8]. The raw materials, products, structural parts, equipment, etc. that enter the site are checked and accepted by the construction unit, professional engineers, and project supervi-

sors, and the opinions of the on-site acceptance are signed. In summary, if the raw materials of the project can pass the strict four levels above, the quality of the construction project has a basis for protection, and then the other four factors that affect the quality of the building are “people, machinery, methods and environment”. After doing well, we will be able to provide qualified construction products to the society.

3.4 Select the Appropriate Construction Process

In the construction process of the project, the construction plan is the key that directly affects the construction quality. In other words, in the construction process, scientific and reasonable deployment of human and material resources, main body and auxiliary, supply and consumption, production and storage, professional and collaboration, use and maintenance, space layout and time arrangement, etc., as Guidelines for construction quality management of construction projects. In the preparation stage of each project construction, its project manager department organizes and manages the members to design the construction plan according to the established construction organization. Highlight the key points, organize practical methods and effective measures in a specific and detailed manner, implement quality control management, perform post responsibility system, and other various rules and regulations, scientifically and reasonably organize and implement the procedures and steps of project construction.

4. Conclusion

The management of project quality is a whole process management, the most important of which is the management during the construction process. Quality management is a commonly used management method in production, which is the self-requirement of construction enterprises. It emphasizes the high standards and high requirements as well as the management of the entire process and projects. It is to improve the quality of employees and ensure the quality of the project through the quality of work. Quality management focuses on comprehensively improving the overall quality of the enterprise. Its core is people-oriented. The quality of work is improved by improving the quality of people to achieve the expected quality results, while creating better economic and social benefits. Effectively grasping the quality control of the whole process of the project is the key to achieving the final quality goal. Strengthening the quality control management at all construction stages can ensure that the quality of the construction project meets the expected goals and meets the needs of people’s lives and work.

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