Analysis on Quality Management and Control Measures of Construction Engineering under the Background of New Economic Development

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Keywords: New economic development; building construction; engineering quality management

Abstract: Since the beginning of the 21st century, China's social and economic development has developed rapidly, and the need for construction projects has become more and more. But the construction technology of the construction project is very complex, which needs more types of work, and has a longer period. These uncertainties will affect the overall quality of the construction project. Therefore, under the background of the new economic development, the author analyzed the quality management and control measures of construction engineering. The factors affecting the construction quality of building construction were discussed. According to the analysis, the quality management and control measures of construction projects should be strengthened at this stage in order to improve the quality of construction projects and promote and promote the healthy, stable and benign development of the construction industry. It is necessary to do a good job in the control and management of construction quality, in order to improve the satisfaction of product buyers and improve the economic and social benefits of construction units.

1. Introduction

With the development and operation of China's construction industry, many new construction materials and construction techniques have been applied to construction engineering construction management, which has greatly improved the quality of construction engineering [1]. In this case, high-rise buildings and smart buildings have increased [2]. The quality management control of construction engineering is an important part of construction engineering. It is a relatively complicated work, which will be affected by many aspects such as construction scheme, materials, equipment, technology, technology and management of construction engineering [3] . In order to improve the quality of housing projects, quality management and control of the whole process of building construction must be carried out [4]. The quality of building construction refers to the function of the building that meets the requirements of the owner, and also refers to the degree of improvement of the house project [5]. Whether the quality of the project can be guaranteed depends on whether the management technology is in place, the technical management is not in place, and the project will be very passive and checked and balanced [6]. Whether it is the owner, supervisor or quality inspection unit, when the quality of the project is not guaranteed, rectification orders and stop orders will be issued, resulting in technical personnel tired of coping with [7]. Since China joined the WTO, many enterprises have been unable to adapt to the change of quality management mode in the new era [8]. As a pillar industry of China's economic growth, the construction industry will inevitably be eliminated by the society if it fails to change the concept of quality management in time.

It is understood that many construction units often neglect the quality and safety management of construction projects in order to pursue their own interests. If the relevant control measures are not taken in time, the problems caused are unthinkable. Therefore, the relevant personnel must strengthen their own safety management work, and put safety work at the focus of enterprise development in order to promote the long-term development of construction enterprises [9]. The quality of construction of a building construction project can reflect the operating conditions, economic level and credibility of the construction unit. However, with the increasing technical difficulty of construction engineering, there are many types of building materials, and if the treatment is improper during the construction process, a large quality problem will occur. Due to the

  DOI: 10.25236/icemeet.2019.335

complexity of the internal system of the project, there are relatively many factors affecting the quality of the project. Under this circumstance, the construction enterprise should increase the research on the construction quality management and control measures of the building construction project [10]. With the continuous development of housing projects, the construction quality management methods of buildings have also undergone great changes. The products of the construction industry are related to the development of China's economy and the safety of people's lives and property. Therefore, whether the quality of its products meets the requirements is the basis and prerequisite for the survival of construction enterprises.

2. Problems in Quality Control and Management of Construction Engineering

In our country, there are many workers engaged in the construction industry, and the construction technology in the construction industry is relatively simple, so many construction workers are undocumented, which makes the overall quality of construction workers in the construction industry is relatively low. Because of the low cost of inferior materials, many enterprises now use inferior materials for their own interests, which directly affects the quality of the project. This is what we often call "bean curd dregs" project. Secondly, the factors of equipment. Therefore, the selection and use of building materials should be strictly screened, and unreasonable and unqualified building materials should not be used. Under normal circumstances, the engineering materials are not purchased and distributed uniformly. It is the responsibility of the contractor. If the construction site is remote, the scope of provision of local materials will be relatively small, and the materials cannot meet the requirements in terms of type, quantity and quality. However, in the process of operation of some building construction engineering enterprises, in order to reduce the construction cost, the use of inferior building materials is indispensable, resulting in a serious decline in the quality of construction projects. The impact of construction equipment, in terms of construction equipment for building construction, mechanical equipment is the most frequently used equipment, especially in the modern building construction process, the use of advanced machinery and equipment is more extensive, making the construction equipment of the building construction The construction quality of the building also has a great impact.

It is often carried out from the owners and construction project participants as well as government departments to carry out the management and control of construction quality. Figure 1 is the quality assurance system.

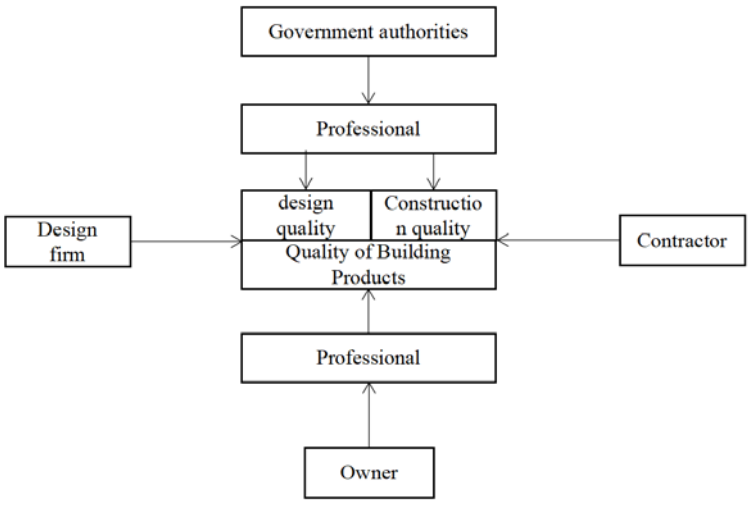

Fig.1. Quality Assurance System

In order to ensure the construction safety and quality during the construction period, the relevant units in our country have formulated the quality management supervision system of construction projects. In addition, inadequate management and perfunctory construction personnel will affect the quality of construction. Enterprise personnel did not coordinate the work of each department or did

not adjust reasonably according to the actual situation, which also affected the construction quality. The quantity and quality of supervisors are far from meeting the requirements of the project. In order to save costs, some contractors divide supervisors into other positions and do not directly engage in supervision work. Secondly, the contingent restraint mechanism is not perfect. Finally, the quality supervision is weak, and the supervision equipment and means are not complete. In the design link, the supervision unit's participation is not enough, and the problems in the design link are not pointed out, which makes the design problems appear in the construction process and leaves hidden quality hazards to the construction. The construction personnel of housing construction are mainly the technicians of construction and the designers of housing engineering. Therefore, it is necessary to take appropriate measures to improve the enthusiasm of the construction workers. But this system is only passive supervision and management, is a more stylized form of supervision, does not have a diversified management and supervision mode. At present, China's construction industry still needs manpower to complete, and the construction workers are all composed of migrant workers, seriously lacking professional knowledge and professional quality. If the construction personnel's technology is not up to level or has no serious and responsible attitude, it will have a serious impact on the construction quality.

The staff of the quality system of the project management department of the construction project shall perform the work of recording, sorting, orchestrating and archiving the operation of the quality management system in accordance with the relevant regulations. As shown in Table 1.

Table 1 Recording work allocation Table for quality system operation

Numbering	Person in charge	Quality Work Record Project
1	Cost Engineer	Review Record of Contract
2	Head of Material Department	Product description, test report sheet and certification materials of materials
3	Material man	Non-cooperative labeling of materials provided by customers and record of related problems
4	Quality inspector	Control of nonconforming products and related records
5	Labour Manager	Training record
6	Head of Safety	Construction Safety Inspection and Relevant Records

3. Quality Management and Control Measures of Construction Engineering

Architectural engineering structural design and construction process design have a great impact on the quality of construction engineering. Therefore, in order to avoid the common problems of construction engineering quality, it is necessary to strengthen the design of architectural engineering drawings. In the process of checking drawings, it is necessary to go through 3 to 5 relevant posts, and select experienced leaders to carry out the checking, so as to prevent loopholes in one person's checking and cause unnecessary trouble to the construction. The actual construction process of building construction engineering is the key link of quality management and control. Relevant management personnel should proceed from the three perspectives of human resource management, material management and equipment management to increase the quality management and control of building construction projects. Correct quality management consciousness is the premise and foundation of quality management in construction projects. Construction personnel should strengthen quality management consciousness, clarify the responsibilities of quality management, and implement quality management to specific personnel. Once problems arise, relevant responsible persons can be found to ensure the smooth progress of construction projects and improve the quality of construction projects. Check the specific situation of the quality plan according to the quality supervision method. After problems occur in the review process, reasonable measures should be taken to deal with them in time, and the problems should be notified to the project team leaders. And when consumables are about to be put into construction, quality inspectors should sample the consumables that will be put into construction to ensure that the quality of materials meets the

quality standards of construction.

If the construction project is to be completed smoothly, it must be coordinated and coordinated by many different functional organizations, as shown in Figure 2.

Table 2 Division of Duties and Duties of Construction Project Managers

Serial number	Task division	Position
1	Grasping all the work of construction	Project manager
2	Responsible for all technical work	Head of Construction Technology of Civil Engineering
3	Responsible for on-site production	Factory manager
4	Responsibility for materials	Material Manager
5	Quality supervision and inspection	Quality Inspection Manager
6	Assist technicians and supervisors in site management and major technical work	Construction Manager
7	On-site construction data collection and collation	Information Administrator
8	Responsible for project safety supervision and inspection	Security Administrator

With the development of social economy, the construction industry is also developing rapidly, so the relevant construction project management policies should be adjusted appropriately. Construction enterprises should organize relevant safety lectures and training regularly for construction personnel, and carry out safety education activities systematically and comprehensively. In the process of building construction, in order to maximize the benefits, some construction enterprises do not abide by safety regulations and carry out illegal operations, which is the fundamental factor leading to frequent safety accidents in China. In the bidding stage, it is necessary to grasp the standard of construction budget Tables so as to ensure the high quality completion of the bidding plan. In the aspect of engineering connection, we must be more careful. Once we find that the construction quality has not met the specified requirements, we immediately ordered the construction to stop and all the problems were solved in the next construction. Secondly, establish contact with the local building construction engineering quality supervision department, and strictly abide by the national laws and regulations, comprehensively accept the housing construction project, focus on the construction difficulties and quality control difficulties, and timely discover the building construction project. The quality problem can only be formally used only after the acceptance of qualified building construction projects. At the same time, the placement of materials should be scientific and standardized, and materials should not be stacked at random. They should be placed according to different types and models of materials to ensure the quality of materials.

4. Conclusion

In summary, in recent years, high-rise and intelligent buildings have almost become an important indicator to measure the level of economic development and modernization of a city. In order to better complete the quality control and management work, we must consider the causes of the problem from multiple angles, and summarize the measures to solve the problem according to the specific problems, so as to ensure the quality of the project meets the contract. Qualified materials are the guarantee of the quality of the project, so the materials department should prepare the project material procurement plan according to the drawings and design schemes of the project construction. Then, according to the actual construction progress and consumables, the procurement plan will be changed in time to ensure the needs of the construction materials. The continuous expansion of the scale of housing construction projects not only increases the difficulty of construction and management, but also challenges the quality management and control work. In this

case, the relevant housing construction enterprises in the process of operation, we must have a comprehensive grasp of the factors affecting the quality of housing construction projects. Actively take measures to improve the quality management system, strengthen the quality of personnel and supervision level, promote the improvement of project quality management level, ensure smooth and high-quality construction of the project, provide a safe and secure environment for the people, and realize the economic and social benefits of construction projects.

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