

Research on construction technology management of industrial and civil construction sites

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Abstract:

In today's increasingly fierce construction market situation, it is very necessary to carry out the standardization and scientific management of building construction technology. It not only involves the core interests of the project and the survival and development of the enterprise, but also relates to the safety of people's lives and property and the stable development of society. Therefore, in industrial and civil buildings, it is necessary to develop a series of effective measures for on-site construction management. Improve the existing problems, refine the responsibilities, strengthen supervision and management, timely discover the existing safety hazards, and ensure the quality and safety of construction. Therefore, it is necessary to start with the needs of industrial and civil construction projects and the status quo of on-site construction technology management, and put forward effective management strategies to provide certain references for industrial and civil construction projects, and improve the on-site construction technology management plan, so as to improve management efficiency.

Keywords:

Industrial and civil; Construction site; Construction technology management

1 Significance of technical management of industrial and civil construction site

The construction industry occupies an important position in the sustained growth of the national economy. With the development of the times, a large number of new technical means have been applied in construction industry, which has greatly increased the difficulty of site construction technical management. Due to the imperfect construction technology management system and the poor coordination of various types of work, the construction efficiency of industrial and civil buildings is affected to a certain extent. Therefore, in the face of the challenges of the gradual diversification of industrial and civil building types, we should actively strengthen the technical management of on-site construction, carry out construction activities safely and orderly to improve the construction efficiency and quality effectively. From another point of view, in the construction of industrial and civil building projects, doing a good job of on-site construction technology management and reasonable allocation of resources can help reduce the construction irregularities and create a safe and orderly construction environment. Therefore, managers need to continuously improve their professional capabilities, introduce cutting-edge concepts, rely on advanced technical means to assist on-site construction technology management. While reducing resource loss and construction costs, it also ensures the effectiveness of on-site construction technology management of industrial and civil construction projects.

2 Composition of industrial and civil buildings

The scale of industrial and civil construction projects continues to expand, and the construction quality requirements are getting higher and higher. It is necessary to fully grasp the overall composition of the project before construction, the introduction of advanced construction techniques and technology, coordination of various work processes smoothly, to enhance the efficiency of industrial and civil construction project construction. Specifically include the following parts:

2.1 Foundation. Foundation is the basic link of industrial and civil construction projects, bearing all the loads of construction projects, and transferring the loads to the foundation during construction.

2.2 Base walls and columns. Both walls and columns belong to the important links of industrial and civil buildings, but the stress conditions of the two are different in practical application. The wall is the building envelope construction, which needs to bear the overall weight of the building. The column is the vertical load-bearing component of the building frame structure.

2.3 Floor stratum. The industrial and civil buildings are horizontal load-bearing constructions, including the ground floor of

the building and the intermediate floor panels.

2.4 Stairs. Stairs are the passageways that connect the floors of a building.

2.5 Roof. The roofs of industrial and civil buildings are special enclosures and are directly connected to the walls. In use, it bears the overall weight of the building, and also includes the roof insulation.

2.6 Doors and Windows. Doors and Windows belong to the non-load-bearing components of the building, which have the function of room separation and regulate the indoor light and temperature.

3 Effective measures to strengthen the technical management of industrial and civil construction site

3.1 Reasonable arrangement of the general construction plane

Through the reasonable arrangement of the construction of the general plan of the design, we can have a full understanding of the total project. With the help of information technology, we can also realize the application and management effect of construction technology. The integration of information technology and construction general plan, the formulation of effective construction management plan, for the formal construction of adequate preparation. First of all, it is necessary to reasonably divide the construction plan to determine the specific function of the project and the demand for construction technology. Make a table to list the functional area construction machinery, equipment requirements, material requirements, etc., to provide materials for the formulation of construction technical plans and management plans. Secondly, the effective laying of the general plan to ensure that the construction technology is more reasonable. Information technology can be used to build a model to determine the final construction technology and construction links, and formulate a coherent construction management plan to avoid the mutual influence of different construction links and further affect the construction quality. Of course, in order to ensure the scientific construction of the general plan, on-site investigation can also be carried out. Understand the environment around the construction site, compare and analyze it with the plan, and consider the problem in combination with the actual situation. Finally, make full use of the construction general plan analysis and planning, and consider the possible various construction situations, formulate an emergency plan to avoid repeated secondary construction.

3.2 Improve technical management rules and regulations and strengthen supervision

Strengthening the management of site construction technology is inseparable from the support of improving rules and regulations. Through rules and regulations, the work responsibilities of each link, each department, and each group can be further refined, and the responsibility can be implemented to specific individuals. It also provides an important basis for regulators, and there are rules to follow, standardize on-site supervision and management, strengthen supervision, and improve management quality. First of all, in terms of audit, the principle content, objectives and taboos of audit should be specified in detail in the rules and regulations. In particular, it emphasizes the professional quality of auditors, standardizes the audit process, and ensures that each link is more rigorous and specific people are responsible. Strictly regulate the audit process to ensure the quality of the audit. Secondly, according to the management regulations of on-site construction technology, different links involve a variety of construction technologies, so targeted supervision posts can be set up according to different construction technologies. Regulators are required to have professional technical knowledge before they can carry out regulatory work. The application of materials and the standard operation of technology are specified in detail. At the same time, it also formulated a series of punishment provisions on operation errors and non-standard operation. Finally, the inspection system is detailed. In all aspects of the project, supervisors need to inspect the specific conditions of the construction from time to time and detect the quality problems of the parts that have been completed. Even if the general plan design is very reasonable, there will still be a variety of emergencies during the construction process. Therefore, the inspection system also provides detailed provisions for the specific treatment of various emergencies, and requires supervisors to keep in mind the start of various emergency programs and calmly deal with various emergencies. Through the elaboration of these contents, we can further improve the construction management system, strengthen the supervision of the site, and improve the construction efficiency.

3.3 Complete the supervision of all links and strengthen the construction quality management

The quality of technical management of construction site cannot be separated from the support of supervision and management of each link. When formulating the construction supervision plan, the specific content of each link should be considered and then divided into details. Focus on strengthening the supervision of all links, through all aspects of quality control, strengthen the construction quality of the site, eliminate all kinds of safety hazards, and ensure the safety of subsequent use. First of all, in the early stage, it is necessary to do a good job in the supervision of the preparation of the plan and clarify the specific scope of construction. It can apply some scientific analysis methods and do a good job in the field investigation, finally

determine the construction technology, and improve the design of the preparation of the plan. Secondly, in the use of supervisors and construction personnel, it is necessary to pay attention to the introduction of talents. For the supervision personnel, carry out the assessment work, pass the assessment, and hold the certificate. Through the assessment to select a group of high-quality staff. According to the needs of construction personnel, the construction team should provide corresponding construction qualifications, and carry out qualification audit to select qualified construction teams. Before the official start of work, they also need to carry out safety education and training work, not only require them to master all kinds of safety precautions, but also need them to strictly abide by the operating regulations of various technologies to ensure the standardization and standardization of operation. Third, supervision is also needed in the procurement and use of materials. Select qualified material suppliers through bidding, and select cost-effective raw materials that meet the needs of the project. Before entering the site, the site can be put into use after passing the sampling inspection. Finally, it is necessary to improve the disclosure of construction technology. Before the formal construction, the construction technical management personnel shall make technical disclosure to the project technical management personnel at the next level. Through the disclosure level by level, it is convenient for the managers of each part to fully understand the technical specifications and application effects. In this way, technical management can be effectively carried out in actual work, some wrong operations can be corrected in time, and supervision efficiency can be improved.

Conclusion

To sum up, the rapid development of the modern construction industry, the continuous expansion of the scale of industrial and civil construction projects, the application of new technologies, new materials and new processes have made the on-site construction technology of industrial and civil buildings more and more complex. In order to improve the construction efficiency of industrial and civil buildings, it is necessary to further strengthen the management of on-site construction technology, rationally allocate resources, and lay the foundation for the orderly development of construction activities.

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