

Research on Control Strategy of Power Engineering Quality Management Based on Safety Management

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Abstract:

Especially after the 18th National Congress of the Communist Party of China, with the rapid development of social economy, the development of electric power engineering in China has made significant improvements. In the quality control process of electric power engineering, we must pay attention to the importance of safety management. Only the quality control strategy of electric power engineering based on safety management can ensure the sustainable development of China's electric power engineering construction industry.

Keywords:

Safety management, electric power engineering, quality management, control strategy

With the development of social economy, power engineering is also in full swing. Reliable power engineering construction has become a major problem affecting people's economic life. In the construction of electric power engineering, the operation of the site is very complex, and it is necessary to carry out multi-work, multi-angle and multi-directional construction. Construction may be affected by many factors, which affect the development of construction personnel, construction equipment, environmental construction and power engineering construction to varying degrees.

1 Characteristics of power engineering quality

1.1 The factors affecting quality are diverse

Many factors affect the quality of power engineering projects of power companies. For example, the description and accuracy of the project design phase will directly affect the quality of the power project during the construction phase of the power project. In the construction phase of the power project, the work of the construction machinery, the quality of the materials used, the construction method, the construction technology, the weather conditions during the construction process, etc. These factors directly or indirectly affect the quality of the project. Therefore, strict quality control must be carried out in all aspects of construction to ensure the quality and safety of power projects.

1.2 The quality fluctuation frequency in power engineering construction is large

Compared with the general industrial production, the general industrial production has a fixed production line production process, is relatively standardized, so a set of stable production equipment, stable production environment, product specifications and series are necessary. However, electric power engineering is different, and even every process link in construction is different, which leads to the construction quality fluctuation problem easily in the construction process of electric power engineering.

1.3 Quality inspection is not disassembly

When a power engineering project is completed, it cannot be disassembled and tested in the same way as other products or equipment when inspecting the power design. The integrity of power engineering projects determines that power engineering must strengthen quality control in the construction process to prevent the difficulty of quality inspection after the completion of the project [1].

2 Power engineering quality management control strategy for safety management

From the current status of power engineering construction, there is a close relationship between safety management and quality control of power engineering, both of which belong to the scope of power engineering construction management, and

safety management is the basis of construction quality control. For security management reasons. If the project does not meet the safety management standards, accidents will often occur during the construction process, and the quality of the power project cannot be guaranteed. Therefore, the construction quality control of power engineering based on safety management has timeliness.

2.1 Safety management of power engineering construction

Building safety management is the basis and premise of power engineering control. In the process of design management, only strict compliance with safety management requirements and effective implementation of safety management mechanism can ensure the safety of power engineering and provide guarantee for construction quality. A sound safety management mechanism should be established for the safety management process of potential projects. Only in this way can the laws and regulations in the safety management program be complied with. In particular, three levels of safety training and education must be provided for new employees. Professional construction personnel must have professional qualifications before entering the construction site. For the safety accidents that have occurred in the construction process of power engineering, rectification should be carried out within a time limit to strengthen design management, check the safety of resources, carry out strict management and safety production, and establish and improve industrial safety management is also necessary. Supervision by managers based on the current design of a particular power construction project. In the process, rewards and incentives can also be established. That is, the implementation of labor market policies and systematic rules to achieve good results. The Engineering Department will regularly assign each professional designer team to carry out on-site safety inspection and audit, and impose fines according to whether the evaluation results are qualified. According to the research, objective factors and human factors are the main reasons for the safety management problems in the construction of electric power facilities. When examining the causes of safety incidents, it can be seen that most accidents and safety risks are closely related to people's attitudes and behaviors. Therefore, it is of the utmost importance to ensure the quality of construction safety management in accordance with the operational principles of electricity and to reduce the impact of emergencies during construction. In power construction, it is necessary to conduct regular or irregular safety training for construction managers and employees, so that they can master safety protection skills, through publicity, training and other ways to create an atmosphere where everyone understands safety and everyone can protect themselves, so as to effectively improve their safety awareness. In this process, it is necessary to increase the confidence and ability of builders and managers to improve employee responses [2].

2.2 Strengthen prevention and promote the normative development of safety work

The core problem of power engineering construction enterprise management is to avoid misoperation and casualty accidents, and strict compliance with technical specifications and related operating systems is essential to reduce accidents. In addition, there is a need to improve the safety management system and provide appropriate incentives and resource potential for appropriate penalties according to the specific requirements of the project. In addition, there is a need to strengthen the safety management of power management and standardize safety work. To this end, business managers must anticipate and strengthen the management of critical and difficult project issues. Inspect manufacturing and construction sites, and carry out scientific management and control of occupational safety issues. All supervisors shall be responsible for regular inspections and strictly prohibit illegal operations on the construction site. At the same time, it is also necessary to strengthen the management of subcontracting units, and severely punish construction units that fail to strictly implement rules and regulations and fail to manage safety in place.

2.3 Create a sound safety management responsibility system

When constructing a power project, it is necessary to create a comprehensive corporate responsibility system. According to the system requirements, by dividing the management scope and management content of the security management personnel. Safety managers can take basic precautions at the construction site, such as wearing ∞J helmets. For high-rise construction personnel, it is necessary to implement the safety management of machinery and equipment to avoid the effects of adverse weather conditions, which also threaten the personal safety of operators. In addition, it must be handled carefully, through bulletin boards, signs, etc., to play a warning role, construction companies can improve and maintain safety awareness, which can effectively improve the efficiency of safety management.

2.4 Effective strategies for strengthening construction quality control of power engineering

According to the safety management of power engineering, the most important thing in the construction quality construction process is to create and implement the raw material management system for construction quality and material quality. First of all, we should strictly check the quality of raw materials. This is the basis of product quality assurance. In the process of purchasing raw materials for the production of power engineering, it is necessary to choose the manufacturer at the end, protect information, compare efficiency and quality. When the building materials arrive at the construction site, they must be inspected again. The use of materials that do not meet the requirements of the standard is prohibited. Efforts should also be focused on strengthening research on all aspects of power construction, managing the technical requirements of buildings, and strengthening the management of raw materials, building requirements, and quality standards required for each connection. For the construction unit, when selecting materials, the qualification certificate should be checked, the double-control construction raw materials need to be provided by the other side of the test sheet, special construction raw materials need to have the recommended certificate issued by the construction department, otherwise, the construction quality will be affected. When raw materials enter the factory, they also need to be carefully inspected and must be monitored and controlled in accordance with the rules. If you notice any problems, head to the return site immediately. Second, establish and improve the construction and management mechanism of energy projects. In the construction of power facilities, it is necessary not only to do a good job in the quality control and management of building materials, but also to create a reliable control mechanism on the site, and to ensure that the mechanism is effectively implemented, so that the construction quality is more guaranteed. In addition, there is a need to establish a quality management system to strengthen the objectives in the areas of construction quality, resource organization, management, and construction management. Manage construction quality objectives, organize and administrative resources, and manage construction, site obstacle removal, removal and acceptance, i.e. perform continuous quality control in the power project during the construction process of the project team. Quality inspectors must have a variety of work experience and technical certifications.

And strengthen the supervision and inspection of buildings according to the quality level of power projects. Each professional work implements a quality delivery mechanism and establishes a "three inspections" system. A construction process is not up to standard, and the next process operation cannot be carried out. An effective quality control system has been established to ensure that the quality of the sub-project meets the predetermined standards [4].

3 Conclusion

Usually, in the context of the new era, technical quality control based on safety management is very important. In addition to effectively improving the overall quality of energy technology, it can also effectively meet the electricity needs of users and contribute to the long-term development of power companies. At present, under the influence of many factors, quality control in power engineering and safety management is still a major issue affecting the long-term development of a strong enterprise. Therefore, in actual work, relevant personnel need to be aware of the important value and significance of safety management and quality control. And compared to the current situation, in order to strengthen the safety management and quality control of many links, it is necessary to fully integrate all content into the safety management system in some way, to provide guarantees for construction safety, to continuously improve the level of quality control, and most importantly, to improve the quality of power projects to meet production safety standards.

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