

Existing problems and measures in safety management of chemical engineering

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Abstract: For a country, the industry is a very important system, the embodiment of the country's comprehensive national strength, the country's economic development level and the development of science and technology level has direct impact on industry. The development of chemical industry also has great impetus to the national economic development. The technical requirements for chemical engineering are particularly high. Because of the danger of the chemical itself, safety becomes the first thing to notice in the construction process. In order to prevent the occurrence of danger in the actual construction process, the safety of chemical engineering construction is made, and the effective safety management is the most critical step. A reliable safety management is the guarantee for the smooth construction of the construction, so the early safety management becomes the key to the development of the chemical industry. Chemical engineering is an extremely complex and changeable system, and the kinds of problems involved are very many, which requires the construction personnel to pay more attention to ensure the safety. In order to implement the safety management measures in the process of chemical engineering construction, it is necessary for the management personnel to strictly control the whole construction process. In case of any problem, we should deal with it in a timely manner and pay more attention to the details. We should pay attention to fire prevention, pollution prevention and anti-explosion prevention. Technical personnel should pay more attention to technical problems and eliminate safety hazards. The construction company must also strengthen the personal quality of the project management personnel and other issues. It is necessary to examine personal responsibility and safety awareness and avoid unnecessary losses caused by various construction safety issues to the company^[1].

Keywords: Chemical engineering; safety management; construction problems

1. Introduction

Our country attaches great importance to chemical engineering, and has a great investment in the industry involved in various chemical engineering every year. It is possible to know the importance of chemical engineering to the construction of a country. The chemical engineering construction engineering compared with our common ordinary can be found that chemical engineering requires a lot of money, and its main content is to prepare for later production in, involved the content and more widely. In the process of chemical engineering construction, the scale of construction is relatively large, and many special construction materials are widely used. Special construction materials also have corresponding construction technology, many precision construction instruments should also be used in the operation of

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safety standards, which can be roughly seen the difficult construction requirements of chemical engineering.

2. Chemical engineering construction features

2.1 Large-scale, high-investment

In the preliminary construction preparation, the construction unit needs to purchase related production equipment. The whole construction process is cumbersome and involves a wide range of things, which requires a large amount of capital investment to pave the way for the next stage of construction. It is because of the first step to invest in a large amount of money, and in the early stages of the project, the return of funds in a short period of time is unsatisfactory, and the turnover of funds will encounter a series of problems. In order to reduce the expense of enterprises, the chemical engineering which is not mature or the enterprise management is not in place will reduce the amount of raw materials used in the preparation of materials. Such completion of the construction project can not meet the standard, there will be a lot of safety hazards, and will have extremely serious consequences. Such chemical engineering will not only adversely affect the development of chemical industry, but also hinder the construction of local urbanization economy. The outside world must have a high demand for chemical engineering management, from raw materials to process, to the final product, all must be strictly controlled. Before making a project, a mature chemical engineering project should make a good project budget and control the capital operation according to the actual situation of the enterprise. To avoid the final failure of construction projects or the adverse effects on society, a scientific and reasonable green industry should be established^[2].

2.2 High technological content, rapid update

Chemical engineering as a technological product, its own technology content is high. And modern chemical technology is being updated faster and faster. The chemical engineering construction unit must keep pace with the development of science and technology, and have the operating technology of modern chemical machinery and equipment. And the enterprise individual still needs to have the innovation spirit, promotes the enterprise innovation development, makes the enterprise has the core competence. Through continuous learning new technology, improve chemical engineering technical problems, constantly update inspection standard.

2.3 Heavy workload and high difficulty in construction

The chemical engineering itself is large in scale, the application of the material is particularly complex and the process is varied. It is necessary for the construction personnel with very high professional accomplishment to do every link conscientiously and strictly control each point. However, at present, there are not many professionals who meet this requirement, which is a major concern of chemical engineering.

3. The importance of safety management in chemical engineering

Nowadays, there are many problems in the process of chemical engineering construction. These problems are very unfavorable to the development of chemical process in China if they are not taken seriously by relevant enterprises. Nowadays, there are many problems in the process of chemical engineering construction. These problems are very unfavorable to the development of chemical process in China if they are not taken seriously by relevant enterprises. And a project is related to the vital interests of many people, including security issues, so we must pay attention to safety management to ensure the smooth and safe construction.

4. Problems existing in safety management of chemical engineering

4.1 Reasons for problems in security management

First of all, the complexity of chemical engineering construction sites, such as high work, hoisting operation, etc. In addition, the main construction personnel's safety awareness is not enough, there is no correct understanding of their

own safety. The danger of chemical materials^[3].

4.2 Lack of awareness of safety responsibility

The problems of chemical engineering construction are often closely related to marketization. This kind of problem is likely to be right from the start when bidding enterprise investment, chemical enterprises in order to improve the competitive advantage of itself, with some improper method, such as interacting each other and so on. Although the price will help companies win the bid, there will be a lot of problems in the future. The price is down, but the work that needs to be completed will not be reduced, so the capital will be reduced, the equipment and equipment will not be enough, the quality of chemical materials will be difficult to meet the standard, and there may be safety problems. The source of all these problems lies in the weak safety management consciousness of chemical engineering units, too little investment in the safety guarantee, and the neglect of technical standardization. The development of an enterprise is still in the hands of enterprise leaders. If the leaders of the related enterprises do not attach importance to the safety management and do not realize the importance of safety management to the development of the enterprise, it will affect the implementation of the management of the corresponding measures and the quality problems and the emergence of security problems.

4.3 Chemical engineering itself is highly dangerous

The materials required for chemical engineering are all harmful chemicals. The danger of inflammable and explosive materials under high temperature and high pressure industrial production environment can be imagined. The strong competitiveness of the market will transfer the supervision of security management, and employees will naturally relax their vigilance.

4.4 The workload is too large to be fully managed

The chemical engineering production environment is complex, the enterprise managers face the huge production system, the management work will be affected certain. The lack of strict management will lead to a series of safety problems caused by the confusion of production environment. The incomplete management will continue to affect the follow-up accident prevention work, and there are great hidden dangers in enterprise safety management. The longer the time, the greater the area affected by the accident and the heavier the heel. Therefore, in the construction of chemical engineering, it must be taken seriously when it involves enterprise production safety. Chemical engineering is highly dangerous and does not pay attention to safety. It is easy to cause economic problems and life safety problems. The chemical process is different from the general construction project. Its inherent risk requires that the relevant personnel must maintain a high level of vigilance from the beginning of construction to the end of construction^[4].

4.5 Early construction management is not in place

The safety management of chemical engineering is carried out throughout the project. In the early stage, we should pay special attention to it, because it is necessary to develop a complete safety management system in the early stage, which is integral to the whole construction. The previous work includes education for related management and construction personnel, management of materials and equipment management. In the whole construction project, including many aspects. In the early stage, enterprises should also have classification on education for construction personnel, and different construction type safety problems should be corresponding to relevant personnel. Chemical materials should also be safe management, quantity and quality, which have a substantial impact on the construction results.

5. Chemical engineering safety management measures

5.1 We will improve the construction safety management system and raise awareness of safety management

First of all, chemical engineering should establish an effective construction safety management system. After the system is set up, the enterprise managers should strictly monitor the construction process according to the management system, add the responsibility system of safety management, and correspond each step of the responsibility management to the corresponding personnel. When there are any problems in the construction process, it is possible to identify the responsible person as soon as possible, make the whole process open and fair, and improve the sense of responsibility of the construction personnel, thus reducing the occurrence of accidents. It is also the enterprise should increase the safety management of the construction personnel, all the time must put safety management in the mouth, from the thought of the enterprise personnel to understand the importance of safety management, always keep in mind safety protection.

5.2 Strengthen skill training and improve technical level

Chemical engineering production process and its complexity, production technology requirements and construction materials is also very special. The chemical process is a construction project with high technical level, so the professional technical ability of chemical engineering construction personnel has the most direct impact on the final construction quality. In order to guarantee the comprehensive ability of the enterprise, the construction unit must have high construction level, and it is necessary to strengthen the cultivation of chemical construction personnel. In order to make the construction personnel have a high technical level and make the final construction results meet the requirements, the enterprise capital should be allocated to the talent training. At the same time, the construction workers have good technical and professional integrity, which is also good for the overall development of enterprises.

5.3 Improve the supervision and management mechanism and strictly manage the construction process

The leaders of chemical engineering enterprises set up supervision and management mechanism, which has a good vigilance for construction workers. The influence of the enterprise culture on the enterprise is very big. It is effective to make the builders pay more attention to the safety and the establishment of the supervision mechanism is a necessary measure for the chemical engineering enterprises. The supervision mechanism can effectively and timely find the problems in the construction process, which has a great effect on the prevention of accidents. As supervisory personnel of enterprise safety management, should realize the importance of their role. We should be strict in supervising work, do well in our work and keep abreast of the construction. At the same time, we also need to know all kinds of construction techniques and chemical materials, and can make correct judgments about any situation. To supervise the rationality of the construction process of construction workers, whether chemical materials are used properly, and whether various safety protection systems and equipment meet the requirements, and always remind chemical construction personnel to pay attention to safety.

5.4 Pay attention to fire safety and strengthen safety management

Chemical engineering uses many chemical materials, which are inflammable and explosive properties. If the supervision of the material is not strict in the chemical industry, fire and other safety accidents will occur easily, and the construction involves a wide area, and the area of the accident is very extensive. Solve the safety problems in chemical engineering, increase the supervision of fire protection and use of electricity, establish a safety responsibility mechanism for construction areas, and arrange for specific personnel to regularly check the area to ensure the integrity of various appliances. And it is necessary to train inspectors to carry out accident safety drills and put safety first. If there is any abnormality in the fire fighting apparatus, repair and replace it immediately.

5.5 Doing a good job in the presentation and inspection of safety technology

Chemical engineering enterprises should carry out safety inspection on the construction site before construction, and every safety technology must meet the construction standard. Once the inspection does not meet the standard, the enterprise should rectify it immediately, and the security work should be implemented. After the site preparation is completed, the construction personnel begin to enter the construction. The enterprise should arrange the person in

charge of the site, and the person in charge should introduce the construction environment to the construction personnel, the regional construction requirements and the attentions of the builders to carry out the work of safety technology. And during the construction process, the responsible person should always keep in touch with the construction staff. Once the problem is found, it should be reported to the top level in time.

6. Conclusion

As a complex construction system, chemical process has many problems in practice. Because of the danger of chemical engineering, construction enterprises must pay high attention, especially safety. Chemical enterprises must strictly supervise the production process, implement safety supervision and management mechanism, and carry out safety management of chemical engineering projects. Intersecting safety management work throughout the construction process, reducing the risk of chemical engineering construction, strengthening the management of construction personnel, increasing the economic benefits of the chemical industry, standardizing chemical engineering, and promoting the development of the chemical industry

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