Safety Management of Coal Mining Process

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Abstract. With the gradual strengthening of national coal mine safety inspection work. But people still lack safety awareness in the coal mine production process. The lack of attention to safety management has led to many safety accidents in the production process of the coal mine industry. Effective supervision of the coal mine production process is of great significance to protect the safety of coal mine workers. At present, the forecasting method in advance is gradually becoming the main method in the main means of coal mine safety management. By studying the competitive strategies of coal enterprises by predicting and analyzing in advance, the modernization of coal enterprise management can be better achieved. Strengthening coal mine safety management and reducing hidden safety hazards are the key content of the development of coal mine industry. This article searches for literature related to coal. Mainly include published books, journals, academic papers, etc., and then classify them. This article starts with the analysis of the problems in coal mine safety management, and puts forward strategies to strengthen coal mine safety management to improve the safety of coal mine industrial production.

Keywords: Coal Mining, Mining Process, Safety Management, Strategy Research

1. Introduction

For a long time, coal mining companies often only pay attention to current interests when carrying out coal mining. However, insufficient attention has been paid to potential safety hazards and related problems that may arise during coal mining. The ecosystem has caused serious damage and wasted a lot of coal resources. This has also caused serious obstacles and problems to the rational use of coal resources and also affected the safety of coal resources in China \cite{1,2}. The safety management of coal enterprises can not only make industrial production more stable, but also develop better. It is not only directly related to the interests of the enterprise, but also related to the personal safety and physical and mental health of employees \cite{3,4}. Solve potential safety hazards, maintain the safety of coal mine personnel, and promote the better development of China's coal industry \cite{5}.

The common cause of many safety management problems is the weak implementation of the system, and the implementation of regulations and operating procedures has been neglected, modified, or even seriously violated regulations \cite{6,7}. For certain security incidents, the vast majority of violations are ranked first, and the accidents are later. In order to save energy, some employees do not strictly implement safety rules and regulations and are accustomed to work based on experience \cite{8}.
Omitting unnecessary procedures leads to accidents and serious consequences [9,10]. The management staff arranges the probes of the gas monitoring system at will, pays no attention to management and maintenance, and becomes a tool for coping with inspections, which cannot play the due monitoring role [11]. Establish a safety development concept, strengthen the sense of responsibility, apply scientific methods, strengthen the concept of legal discipline, improve the ability and quality, and adapt to the needs of safety management in the new situation.

Safety management is a job with powerful management technology and coal mine laws and regulations. By continuously improving the overall level of safety management, the awareness and sense of responsibility of the relevant personnel have been improved, so that they can better adapt to the needs of the new coal mine safety management. Through in-depth analysis and research on the coal mining process, there are certain problems in the safety management of China's coal industry. The author proposes targeted solutions to these problems.

2. Method

2.1. Coal Resources
Coal resources cannot be produced in a short time, and they are absolutely scarce. Coal resources are one of energy and mineral resources. It accounts for 25% of the world's primary energy consumption. The geographical distribution of coal resources is extremely uneven. China has more coal resources in the north, less coal resources in the south, more coal resources in the west, and less coal resources in the east. The distribution of coal resources is very inconsistent with the distribution of consumption areas. From the perspective of the main administrative regions, the distribution of coal resources is uneven. Once coal stocks are used, the marginal cost will increase, mankind will not be able to find a complete substitute for coal, and the production materials cannot be adjusted in time, and the economy will fall into an extreme crisis. In other words, this limited nature of coal resources will limit economic development and the normal operation of other fields. Therefore, it will inevitably highlight the utilization of resources in the mining process, thereby affecting coal mining activities.

2.2. Importance of Coal Production Safety Management
Doing a good job in the safety management of coal production to make the industrial production of coal enterprises more stable is the basic guarantee for the rapid development of coal enterprises. This is not only related to the interests of the company, but also closely related to the personal safety and physical and mental health of employees. Therefore, strengthening enterprise coal production safety management is an important content of enterprise coal mining. The enterprise must comprehensively analyze and solve the safety problems existing in the coal mine production process, and reasonably analyze the safety problems according to the actual situation of the enterprise and the mining time experience to avoid hidden dangers in the coal mining process. It ensures the safety of people's lives and corporate interests, and can better promote Xu Meng's development in China's coal industry.

3. Experiment
This article explores the relevant network resources of China Knowledge Network, reads relevant books at home and abroad, and investigates the literature of coal mine enterprises. And conduct field surveys on the main mines of coal mining enterprises. This article takes the coal mine enterprises as the research object, and summarizes and analyzes the competition rules of the coal mine enterprises, points out the advantages and disadvantages of the coal group's operating characteristics, and then puts forward the countermeasures of the coal group's management? It puts forward an effective way to construct and perfect the competition strategy of China's coal enterprises, in order to realize that China's coal enterprises are based on China's actual conditions at home and abroad, bigger and stronger, improve overall competitiveness, and achieve green sustainable development. After conducting field research on coal mine enterprises, this article collects statistical data related to this topic and conducts a comprehensive and in-depth analysis of the advantages and disadvantages of the
company's safety management, so as to extract the corresponding safety management strategy and thus give the company a competitive advantage.

4. Discussion

4.1. Safety Management Problems In The Process Of Coal Mining
The safety management problems in the coal mining process include the backward management concept, the coal mining workers have no awareness of safe operation, lack of scientific technical guidance, the lack of safety technical personnel and the lack of security management investment. The specific distribution is shown in Figure 1.

The concept of safety management is relatively backward, and the implementation of the safety management system is not in place. Most coal mine safety management concepts are relatively backward. Some coal mine enterprises lack the ability of safety propaganda and education, and safety management propaganda and education are not in place. The safety management rules and regulations are outdated, and most of them follow the old rules and regulations. Most of them are only formal problems to deal with the inspections of the superior departments, and the inspections of the superior departments are not carried out seriously or in place. Lack of safety awareness and serious violation of regulations. During coal mining, employees are the direct enforcers of various safety regulations, but some employees lack safety awareness. In order to save trouble, some employees did not strictly implement safety regulations. They are accustomed to operating according to experience, and omit some unnecessary procedures. As a result, it leads to an accident with serious consequences. For example, when mining work is tight, employees will use irregular face mining. Do not check gasoline when shooting, and shoot in violation of regulations. Some managers arrange the probes of the gas monitoring and control system at will, do not pay attention to management and maintenance, become tools for handling inspections, and do not play their due role in monitoring. Most of the front-line employees in coal mines are migrant workers, with relatively low education level, unfamiliar with rules and regulations, lack of basic safety technical knowledge of coal mines, mainly for making money, lack of awareness. Ownership and collective perceptions, and weak security awareness, have led to quite serious illegal operations. However, at this stage, during the development and construction of Chinese coal enterprises, technological upgrading has been able to meet the society's requirements for coal mining quality. The safety management personnel subjectively manage the safety of the coal mine operation site, which makes the various management methods and monitoring indicators lack standardization and standardization. Some security managers often lack the strength requirements for the entire management level in the course of performing their management duties. When potential safety hazards occur during coal mining, the safety responsibilities of these safety managers are relatively low, and coal mine workers are prone to fluke mentality, and it is easy to bury potential hazards during mining.

![Figure 1. Proportion of safety management problems during coal mining](image-url)

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4.2. Countermeasures and Corresponding Measures for Coal Mining Safety Management

The countermeasures and corresponding measures for coal mining safety management are to enhance safety awareness, ensure safe production, establish perfect safety management rules and regulations, and strengthen prediction and prevention to ensure safe and scientific production. Their specific methods and occupancy indicators are shown in Figure 1.

Table 1. Countermeasures for coal mining safety management

| Strategy                        | Proportion | Details                                                                 |
|---------------------------------|------------|-------------------------------------------------------------------------|
| Increase safety awareness       | 34.5%      | Carry out learning and training of safety education knowledge throughout the enterprise. |
| Establish perfect safety        | 45.5%      | Establish targeted coal mining operations based on the actual development of coal enterprises. |
| management rules and regulations|            |                                                                 |
| Strengthen predictive prevention| 54.3%      | Strengthening prediction and prevention is the current modern scientific method at home and abroad. |
| Improve the quality of the talent team | 45.2%            | Strengthening the safety and competence of the talent team is the fundamental strategy for building a safety foundation from the source. |

As long as we give enough attention and attention to any problem, we can play a good preventive role. The same is true of the safe production of coal. Coal enterprises should strengthen ideological education and firmly establish a sense of safety in production. Carry out safety education knowledge learning and training throughout the enterprise and strengthen safety knowledge promotion. Enterprise leaders must pay close attention to safety management and implement the safety responsibility system. Strengthen employees' study of company safety production rules and regulations, laws and regulations, strive to improve employees' safety production awareness and awareness, enhance employees' professional ethics, and educate employees to firmly establish responsibilities to themselves and others. A sense of ownership of corporate responsibility. Through the selection of "safe production star" and "safe production mode" and other forms, to stimulate the enthusiasm of employees and enthusiasm for safe production, and then form a good safety atmosphere and understanding of the safety of the entire enterprise.

In order to ensure the smooth progress of coal mining operations, it is very important to establish relevant operation processes and management systems. According to the actual development of coal enterprises and the actual mining process of coal, establish a targeted coal mining operation process, combined with the actual working conditions of existing coal mine operators, establish a corresponding safety management system, and do a good job in macro-control The coal mining process protects the smooth progress of coal mining operations. At the same time, in the process of formulating safety management rules and regulations, managers should also play their role as role models, regularly organize all coal mine employees to learn safety management rules and regulations, and improve safety management rules and regulations. Coal miners safety management rules and regulations. Correct understanding of effective implementation in coal mining. In addition, in order to establish a complete coal mine safety management rules and regulations, it is necessary to hang and post it on the coal enterprise and coal mine site. Before the official start of daily coal mining, the relevant managers need to emphasize the rules and regulations of coal mine safety management. Pay attention to and deepen the impact on coal miners. From January 2018 to December 2018, the coal company conducted a total of 15 batches of safety education and training for coal miners, and systematically evaluated and evaluated the effect of safety education. The pass rate reached 98%, and the effect was very significant. By strengthening the safety education and training of coal mine personnel, the safety awareness of coal mine personnel has been improved and the work process has been standardized.

5. Conclusion
Coal mining is a high-risk project. Safety problems often occur in current coal mining, which not only affects people's lives and property safety, but also hinders the development of the coal mining industry. In the process of coal mining, strengthening safety management in the mining process can effectively reduce the occurrence of safety accidents. This will directly affect the development of coal enterprises and the safety of employees. Coal mine enterprises must strictly manage safety issues in daily production, and handle and prevent safety accidents through the most advanced management methods and equipment. Only by ensuring the safety of enterprises can the sustainable development of coal mine enterprises be guaranteed. To do a good job in coal mine safety production, not only the company needs to do a good job, employees need to improve their own safety awareness, but also need the support of the society and the state to effectively improve coal mine safety. The awareness of safe production and the level of employees, and the scientific mining of coal have laid a good foundation for China's social and economic development.

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