

Research on the Application of Green Chemical Technology in the Treatment of Polluted Wastewater Engineering

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Abstract: Chemical industry, as one of the important industries in China, is of positive significance to the development and progress of society. Chemical industry has brought great support to China's economic development, but with the continuous improvement of economic benefits, the environmental problems brought by chemical production can not be ignored. The application and popularization of green environmental protection technology has also become a hot issue of social concern. Only by studying and analyzing green environmental protection technology can we better solve and promote the sustainable development of Chinese society. There will be many pollutants and wastewater in the production of chemical process. Therefore, this paper deeply implements the concept of sustainable development and analyzes the energy-saving mode of green chemical engineering process in chemical engineering. Combined with the understanding of the implementation methods of environmental governance, this paper puts forward the relationship between green chemical environmental protection technology and environmental governance, and puts forward the application methods of this technology to improve the implementation quality of environmental protection in China.

1. Introduction

With the development and progress of society, people's living standards are constantly improving. The chemical industry is of great significance to the development and progress of society. Today's serious environmental pollution is largely caused by traditional industry. In the current environmental treatment work, the application proportion of chemical products has increased significantly, which further improves the connection strength between chemical environmental protection technology and environmental quality. In the operation and development of chemical industry and environmental treatment industry in the future, We need to pay attention to the application of green chemical and environmental protection technology. The chemical industry has brought great support to China's economic development, but with the continuous improvement of economic benefits, the environmental problems brought by chemical production can not be ignored. In the chemical industry, in order to improve the environment in a real sense, we should strengthen the energy conservation and emission reduction of the chemical industry, and treat the polluted wastewater produced by chemical production with environmental protection technology, so as to ensure the good improvement of the environment. The most common pollution in the chemical industry is wastewater, waste and haze. Under the influence of these adverse factors, the natural ecological environment has been greatly impacted. If the pollution problem can not be treated, then social development will be difficult to sustain and threaten the natural ecological environment. Nowadays, under the background of advocating green environmental protection, it undoubtedly has a great impact on the traditional chemical industry.

In order to upgrade the chemical production process, so that green chemical technology can be practically applied in chemical production. Therefore, it is necessary to advocate energy conservation and emission reduction, strive to advocate energy conservation and environmental protection of chemical functions, and carry out environmental protection and green treatment on raw materials, wastes and solvents in production to prevent chemical raw materials and wastes from polluting the ecological environment. It is of great significance to the development of chemical enterprises to pay attention to the application of green chemical technology in chemical industry

and effectively improve the environmental problems brought by chemical production. The application and popularization of green environmental protection technology has also become a hot issue of social concern. Only by studying and analyzing green environmental protection technologies can we better solve and promote the sustainable development of Chinese society. In the chemical industry, in order to really improve the environment, we should strengthen the energy conservation and emission reduction work in the chemical industry, and adopt environmental protection technology to treat the polluted wastewater from chemical production, so as to ensure that the environment can be well improved. The environmental protection technology of green chemical industry can not only enhance the environmental protection characteristics of chemical products, but also have positive significance to enhance the market competitiveness of chemical enterprises. In this context, it is of great significance to make an in-depth analysis of green chemical and environmental protection technologies. The related contents are mainly analyzed below.

2. The relationship between green chemical environmental protection technology and environmental governance

2.1. Significance of green chemical and environmental protection technology

With the progress of modern society, people gradually pursue a higher quality of life, and the concept of green environmental protection has gradually penetrated into the hearts of the people from all aspects of clothing, food, housing and transportation. The display of green environmental protection concept is not only reflected in people's daily life, but also reflected in modern engineering. In the development of green chemical engineering and process, this paper believes that in order to promote chemical engineering to meet the requirements of green environmental protection, it should be controlled from the selection of raw materials, chemical reaction and chemical catalyst. The root of competition among different enterprises is the competition between science and technology. Therefore, if enterprises want to stand out and occupy a place in such a competitive market, they should first not have the working attitude and thought of "making cars behind closed doors", but actively introduce the most advanced technology and technology. This is especially true for industrial enterprises, because green environmental protection technology can not only comprehensively, properly and carefully solve the problems such as environmental pollution, but also further reduce the cost of enterprise expenditure and win more economic benefits for enterprises.

In the past, the production process of chemical enterprises caused very serious pollution to the environment, but people's life and economic construction have a very large demand for chemical products. Under the action of this factor, the degree of chemical pollution continues to increase. The application of green chemical and environmental protection technology is an inevitable requirement for the modernization development in the field of chemical production. How to develop environmental protection technology of green chemical industry is also a key research content in the field of chemical production at this stage. For green chemical industry and environmental protection, it mainly refers to reducing the generation of pollutants with the help of chemical technology, so as to meet the requirements of environmental protection and meet the requirements of economic and industrial development. The environmental pollution problems brought by many chemical enterprises have attracted more and more attention from the public. At the same time, many chemical enterprises have really realized the importance and significance of green environmental protection technology and widely added it to the operation of chemical enterprises. As the latest environmental protection science and technology, green environmental protection chemical technology plays a vital role in green environmental protection. At the same time, every staff member in chemical enterprises should have the concept of environmental protection, so as to ensure the smooth progress of future work.

2.2. Green chemical industry and environmental protection technology are the inevitable requirements of development

Under the background of social and economic development, various contradictions between chemical industry and environment are becoming more and more prominent. Although the chemical industry has brought many conveniences to people's life and improved people's life, it has also strengthened the consumption of social energy and caused great pollution to the environment. In the production process of chemical enterprises, osmotic membrane technology is almost used for environmental treatment, which is used to filter the pollutants in the production process of chemical enterprises. For example, the leachate produced by waste incineration in the production process of chemical enterprises contains a variety of organic pollutants. By applying the permeable membrane technology, the permeate can be filtered with high quality and all the polluted organic substances in the wastewater can be removed, which plays a vital role and significance in protecting the natural environment. In the production of chemical enterprises, enterprises should pay more attention to quoting low-energy consumption production equipment and optimizing production process, so as to improve the operation and management of chemical production and reduce the energy consumption in enterprise production. The use of green environmental protection technology can effectively realize low-energy consumption and high-efficiency chemical production activities, which is also of great significance to the development of enterprises.

At present, the problem of environmental pollution is becoming more and more serious, energy resources are becoming more and more scarce, and there is still serious waste in practical application. People realize that the problem of environmental pollution is closely related to the production of chemical products. Green chemical industry and environmental protection technology provide a major technical guarantee for solving the contradiction between chemical industry development and environmental development. Green chemical environmental protection technology can effectively reduce the amount of waste produced by chemical enterprises, and truly protect the environment. At the same time, it is also of great significance for the environmental governance of chemical industry. The adoption of green chemical and environmental protection technology can greatly reduce the number of by-products produced in the production process of chemical enterprises, prevent the leakage of many wastes, and realize environmental protection in an indirect way. In addition, it continuously optimizes and innovates the operation equipment and production process in chemical enterprises, reduces the energy consumption of production, and also plays an indirect role in controlling the environment.

3. Research on Environmental Protection Technology of Green Chemical Industry

3.1. Application of Environmental Protection Technology in Green Chemical Industry

In the application of green chemical environmental protection technology in chemical production, the optimization of the chemical production system should be improved. In the improvement of the enterprise system, the production equipment and control system should be optimized first. In actual production, the reaction environment usually has higher requirements. In the process of human development and social progress, a large amount of resources and energy will inevitably be consumed. Chemistry is a basic discipline in this process, and the chemical industry is also an important part of the economic structure and has a very close relationship with people's lives. In the past, chemical companies have not been able to establish a good environmental awareness, and the production technology level of chemical products is also very backward. The production and application of chemical products have had a great impact on the development of the environment, and the application of chemical products also has a certain degree of human health. Threat. The concept of energy conservation and environmental protection is gradually gaining popularity, and people are paying more and more attention to various environmental pollution problems caused by chemical products. In order to promote the further implementation of China's sustainable development strategy, it is necessary to continuously coordinate the environmental, social and economic relations. Relationship, so that they can develop harmoniously.

In order to control the pollution problem from the source, it is necessary to manage multiple industries. For chemical enterprises, to reasonably apply green environmental protection technology, it is necessary to manage the pollution problem at the source. At present, the problem of environmental pollution is becoming more and more serious, energy resources are becoming more and more scarce, and there is still serious waste in practical application. People realize that the problem of environmental pollution is closely related to the production of chemical products. Green chemical industry and environmental protection technology provide a major technical guarantee for solving the contradiction between chemical industry development and environmental development.

3.2. Strategy of environmental protection technology in green chemical industry to realize environment and sewage treatment

Relevant Chinese government departments should issue policies to encourage enterprises to actively apply green chemical and environmental protection technologies and strengthen the research on green chemical and environmental protection technologies. At the same time, to introduce advanced production technology and improve the level of technological innovation, chemical enterprises should pay attention to scientific production technology, establish special scientific research groups, improve the enterprise production system and optimize production technology according to their own situation. In order to control chemical pollution in a real sense and improve the green and environmental protection characteristics of chemical products, it is necessary to carefully select processing materials in the production of products, use renewable materials to replace some chemical materials with strong toxicity in the past, and carry out chemical synthesis in a normal environment, Control the hazards caused by chemical synthesis to a minimum.

Relevant departments should set up an independent supervisory department to supervise and manage the chemical production technology of the enterprise, ensure the environmental protection of the production process, discover environmental governance problems in chemical production in time, rectify the production technology of unqualified enterprises, and reduce the cost of chemical enterprises. The impact of the production process on the environment. Enterprises must do a good job of technical guidance, truly realize the importance and significance of the implementation of green environmental protection technical solutions, and strive to achieve the goal of green environmental protection. At the same time, it is necessary to continuously innovate the green production technology of chemical enterprises and apply them in specific work. For example, in chemical production, the leachate produced by garbage incineration contains a variety of organic pollutants. The application of permeable membrane technology can achieve high-quality filtration of the leachate and remove the polluting organic matter in the wastewater, which is harmful to the environment. Governance plays an important role. The development of processes and equipment with high degradation efficiency and low investment cost can effectively solve the sewage discharge problem that plagues the development of enterprises. Electrochemical technologies such as electrocatalytic oxidation, electrocoagulation, and electrofloatation have the characteristics of good wastewater degradation effect, low energy consumption, no secondary pollution, and simple equipment and process.

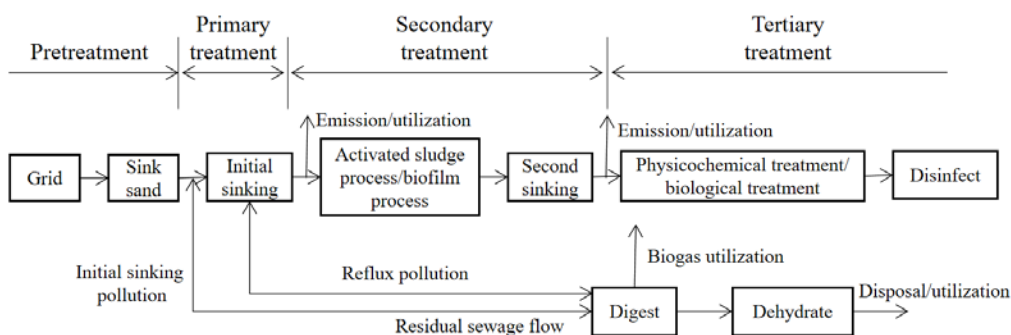


Figure 1 High-salt water treatment

Green environmental protection technology can not only solve environmental pollution and other problems comprehensively, properly and meticulously, but also further reduce the cost of enterprise expenditures and win more economic benefits for the enterprise. Figure 1 shows the process of treating high acid brine in the chemical industry.

In most chemical enterprises, most chemical reaction production processes need to be completed with the help of concentrated acid. It is necessary to reasonably apply green chemical and environmental protection technology, use porcelain anti-corrosion raw materials according to different reaction principles, and isolate other metals and air. In the process of technical guidance, chemical enterprises should carry out strict supervision throughout the process, and actively implement relevant technical methods. Carry out the implementation according to the designed scheme, and conduct detailed analysis and Research on various problems in the implementation process. After that, a sound, perfect and corresponding solution and treatment scheme are formulated to further improve the technical level of chemical production.

4. Conclusions

The development of green chemical engineering and process is an important manifestation of China's industrial scientific research progress, plays an important role in promoting the energy conservation of chemical engineering, and is an important measure to implement the spirit of energy conservation and emission reduction. With the continuous improvement of green chemical industry and environmental protection technology, a structural chain of cleaner production and resource recycling has been gradually realized, effectively reducing the environmental pollution caused by the chemical industry. In the chemical industry, in order to improve the environment in a real sense, we should strengthen the energy conservation and emission reduction of the chemical industry, and treat the polluted wastewater produced by chemical production with environmental protection technology, so as to ensure the good improvement of the environment. We must constantly develop and study the environmental protection technology of green chemical industry, produce green chemical products, better protect people's living environment, and make the harmonious development between economy and environment. The environmental protection technology should be popularized and diversified as soon as possible, and the whole process of cleaner production should be implemented to ensure the availability of green, environmentally friendly, scientific and reasonable chemical products, prevent damage and pollution to the environment, and enable the recycling of resources, so as to create obvious social and economic benefits and make the enterprise develop faster and better.

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