

Study on treatment measures of industrial waste water and waste gas

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Abstract: *At present, China's rapid industrial development, but in bringing economic development to people at the same time, but also for people's life has brought very serious environmental pollution problems in the process of modern factory discharge, waste water and waste gas and other problems cannot be effectively managed and improved, so as to destroy the ecological balance to a large extent Based on this, this paper mainly focuses on the pollution of industrial waste water and waste gas, and studies the treatment measures of industrial waste gas and waste water as follows, so as to provide a theoretical basis for the development of industrial construction, and then hope to promote the effective development of China's industrial construction.*

Keywords: *Industrial wastewater; Waste gas; Control measures*

1. Introduction

At present, the rapid development of science and technology, which can effectively promote the basic power of economic development on a certain level, promote the effective development of industrial modernization in the process of modern industrial development, people began to pay attention to the effective treatment of industrial waste water and waste gas, mainly to prevent the extension and diffusion of environmental pollution problems Industrial production has a certain particularity, and the chemical composition of industrial pollution is relatively complex, and industrial waste water waste gas pollution treatment technology in China is relatively backward, the restrictions on industrial development has brought great effect Thus, related industry management departments should strengthen pollution treatment technology innovation, to ensure that effectively ensure industrial wastewater waste gas treatment.

2. Industrial waste water and waste gas related content overview

With the continuous advancement of industrialization, the production of waste water and waste gas is also increasing, which has gradually become an important source of pollution in the development of ecological environment. Among them, in the discharge process of industrial waste water and exhaust gas, due to the different content of pollutants, there will be differences in industrial properties, which will lead to great differences in the degree and nature of environmental pollution on a certain level. Environmental pollution, including biological environmental pollution chemical environmental pollution inorganic pollution radioactive material pollution In a long period of development, all sectors of society attach great importance to economic construction, but there are obvious deficiencies in industrial waste water and waste gas treatment measures, which break through the ecological environment balance problem on a large level, leading to the gradual deterioration of social ecological environment problems.

In the context of social and economic development, people's awareness of environmental protection is also increasing, more and more attention is paid to the treatment of industrial waste gas and wastewater, and the technical level of industrial waste gas and wastewater treatment is also improving, and a lot of sewage treatment technology is also developing For example, in industrial wastewater treatment, activated carbon adsorption technology application is more and more widely, and application effect is also more and more obvious At the same time, microbes are increasingly widely used in the industrial waste gas treatment, and in the research process of photolysis purification technology has made obvious progress, gradually become the important technical application of industrial waste water waste gas.^[1]

3. Treatment of industrial waste water

At present, the industrial wastewater contains many complicated chemical composition, this to a certain extent, leading to water pollution, and caused great pollution to the environment Industrial wastewater containing a lot of organic matter radioactive material Heavy metals, and microorganisms, etc. In response, industry management departments should strengthen the governance of industrial waste water, can from the following governance approach.

3.1 Physical governance measures

On the treatment of industrial wastewater, industrial management departments can adopt physical treatment measures, mainly to effectively separate various pollutants in industrial wastewater, and remove the residual impurities, so as to achieve the effective treatment effect of industrial wastewater treatment.

3.2 Supercritical water oxidation

The effects of water properties, temperature can play a major role in it To this, in industrial wastewater treatment, industrial management department can be warmed by a water wave, to promote the liquidity of water continues to increase When the temperature reaches a certain level, will gradually form associated gas, such pollution will gradually be dissolved impurities in waste water By supercritical water oxidation technology, can to a certain extent, effective decomposition of various pollutants in wastewater, and under this processing method, better to deal effectively with organic industrial wastewater For example, in the industrial wastewater at high concentration, wastewater will be along with the increasing discharge of propylene, the pollutants will have greater toxic elements Therefore, in the treatment of industrial waste water, industrial management departments can use this industrial technology, and under the appropriate temperature and pressure, remove excess pollutants in waste water.^[2]

3.3 Precipitation method

As for the treatment measures of industrial wastewater, the industrial management department can carry out the wastewater treatment through the precipitation method. This treatment process is mainly to combine the soluble precipitate with the pollutants in the wastewater, and produce a certain chemical reaction, and finally gradually form a substance, which cannot dissolve in the water Under the application of purification and separation technology, precipitation method can achieve the effect of effective treatment of industrial wastewater. At present, in the process of industrial wastewater treatment, industrial treatment personnel can apply sulfide and barium precipitant to reflect the heavy metal pollutants in industrial wastewater, thus playing an important role in it.

3.4 Catalytic oxidation method

For catalytic oxidation method, it belongs to a very basic chemical reaction in the process of industrial wastewater treatment, industrial management departments can through the method of catalyst oxidation, so that industrial wastewater chemical reaction, and to ensure the efficiency of the whole chemical reaction.

In the process of industrial wastewater treatment, industrial treatment personnel can directly use catalyst and oxidant through the principle of catalytic oxidation, so that industrial wastewater catalytic reaction, promote industrial wastewater in the process of chemical reaction to transform all kinds of pollutants into free radicals, so as to play the purpose of purifying industrial wastewater. In addition, in the catalytic oxidation method, the whole method is relatively simple to operate, and can play an effective role in grading industrial organic wastewater^[3].

4. Treatment measures for industrial waste gas

About the industrial waste gas, its composition is relatively complex, and produced by different factories waste gas composition is also different Among them, after industrial waste gas emissions into the atmosphere, will to a certain level of atmospheric environment caused serious pollution To this, the control measures on industrial waste gas, can be reflected from the following several methods:

4.1 Microbial decomposition methods

Highlights gradually in recent years, microbial decomposition technique, its can be implemented under a certain degree by microbial metabolism function, and to effectively decompose harmful substances in industrial waste gas, eventually realizing the effective governance of the industrial waste gas microbial decomposition technique is a new developing technology, the current is still in its stage of development, it has good development prospects At present, in the midst of industrial waste gas treatment, microbial decomposition method, can be genetically modified to existing microbes, to produce a new microorganism for the management of industrial waste water, industrial application of microbial decomposition method, the administrator will be decomposed pollutants in industrial wastewater, so as to achieve a good effect of treatment of industrial wastewater In industrial waste gas treatment, microbial decomposition technology has high technical requirements for microorganisms, which requires relevant personnel to further strengthen effective research on microbial decomposition technology.

4.2 Activated carbon adsorption method

Activated carbon materials in People's Daily life, has a very wide application Among them, the activated charcoal surface has a huge number of pores, the industrial waste gas of various small molecules can be effective after adsorption, in the process of industrial waste gas treatment, can also effectively to all kinds of small particles in industrial waste gas adsorption Under normal circumstances, industrial management departments and other waste gas treatment processes will be effectively used in the process of using activated carbon, there will be a saturation reaction phenomenon, which requires the relevant industrial waste gas treatment personnel to regularly replace activated carbon, to promote the reaction effect is more obvious In addition, in the process of industrial waste gas treatment, industrial managers apply activated carbon adsorption method, and the use of activated carbon porous structure, effective adsorption of small particles and macromolecules in the waste gas, promote the effective treatment of industrial waste gas.^[5]

4.3 Catalytic combustion method

Among industrial waste gas treatment process, industrial waste gas treatment personnel can through catalytic combustion method, the exhaust of harmful substances into a material from pollution In concrete application process, relevant personnel can be use with catalyst, and after the industrial waste gas combustion, composition of these industrial waste gas pollution will gradually appear combustion and decomposition of a chemical reaction After the reaction, the harmful material in industrial waste gas will generate no pollution substances such as water and carbon dioxide These substances can be under the catalytic combustion method, very safe emissions to the atmosphere The essence of catalytic combustion method is through the catalyst for industrial waste gas under the condition of combustion reaction, thus ensuring industrial waste gas emissions effectively.

4.4 Photolysis and purification method

On the treatment measures of industrial waste gas, industrial management departments can also through the photolysis purification method, the reasonable discharge of industrial waste gas, the photolysis purification method, its working principle is relatively complex, can directly change the structure of polymer material effectively, and can also solve the problem of high concentration of mixed pollution waste gas Under the photolysis purification technology, the secondary pollution problem of industrial waste gas can be avoided. The use cycle of the photolysis purification technology is relatively long, and the treatment cost is also very high, but its treatment effect is very obvious, and it plays an important role in the effective discharge of industrial waste gas In short, photolysis purification method is more widely used in industrial wastewater treatment process, but this method also has some defects, such as high cost in the implementation process, and the energy consumption is also large, this treatment standard is difficult to meet the national waste gas treatment standard.

5. Conclusions

To sum up, the modern factory emissions, waste water and exhaust gas are not able to get effective governance and improve, thus largely destroyed the ecological balance Based on this, the social each

industry management departments in industrial waste water waste gas control measures, such as physical treatment method is put forward Supercritical water oxidation precipitation At the same time, the application of microbial decomposition method, activated carbon adsorption method, catalytic combustion method, photodecomposition and purification method is also proposed to effectively treat industrial waste gas. In a word, the current discharge problem of industrial waste gas needs to be paid attention to by relevant departments.

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