

Research on Existing Problems in Urban Sewage Treatment and Solutions

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Abstract: In recent years, my country's cities and towns have developed rapidly, the level of modernization has become higher and higher, municipal infrastructure has gradually improved, and people's requirements for the quality of life have become higher and higher. In cities, sewage treatment has always been a major and difficult issue, which directly affects the urban environment and the quality of residents' living. Although my country already has a relatively sound sewage treatment system at this stage, in the course of practice, there are still some problems that need to be solved urgently. In this article, the author discussed in detail the problems in urban sewage treatment and proposed corresponding solutions to promote urban development and ensure ecological harmony.

Keywords: Urban sewage treatment; Problems; Solutions; Research

With the continuous acceleration of urbanization, my country's urban population continues to grow, and the demand for urban fresh water is rapidly increasing. In the process of water use, the amount of sewage treatment projects has continued to increase. Urban sewage treatment is directly related to the ecological environment of the city, and has very important practical significance for the development of the city. In the process of sewage treatment, it is necessary to be scientific and rigorous, to do a good job of preventive work, to resist problems that may arise at any time, to improve the efficiency of sewage treatment, and to ensure the quality of life of urban residents.

1. Problems in the process of urban sewage treatment

1.1 Lack of advanced sewage treatment technology

As most cities now have independent sewage treatment plants, but their processes are immature and need to be improved. For a long time, our country has been drawing lessons from the wastewater treatment technology of Western countries, and it lacks technical independence and advancement^[1]. Although my country's sewage treatment model has matured in recent years, technological breakthroughs have also been made. However, compared with western developed countries, it is still lagging behind. High resource consumption, low efficiency, and high maintenance costs are common problems in sewage treatment plants.

1.2 Lack of reliable funds

The existence of sewage treatment plants is to effectively save water resources, avoid water pollution, and ensure ecological balance. Therefore, a strong investment is needed to ensure the orderly development of the sewage treatment plant. However, because my country is in the stage of socialist development, investment in sewage treatment is relatively small, and there are limitations in sewage treatment methods^[2]. Although almost every city now has a sewage treatment plant, its work efficiency is far lower than that in developed countries. Even many sewage treatment plants had to declare bankruptcy due to lack of funds.

1.3 Lack of scientific management system

At present, most sewage treatment plants in our country lack advanced management systems and advanced technologies. As a result, in the actual work process, some workers cannot meet the production needs, which restricts the healthy development of sewage treatment plants, resulting in empty sewage treatment plants in cities, but they cannot exert their true effects^[3].

2. Research on countermeasures for urban sewage treatment

2.1 Improve the sewage treatment management system

To ensure the efficiency of sewage treatment, the prerequisite is to improve the sewage treatment management system. For all staff involved in sewage treatment, it is necessary to combine their work nature, clearly divide labor, assign responsibilities to their posts, implement incentive rewards and punishment systems, and enhance their enthusiasm for work. As a government agency, it is necessary to set up relevant supervisors according to the city's sewage treatment situation. The existence of supervisory personnel can better supervise and inspect investment businesses, avoid cutting corners, and breaking laws and disciplines. For staff with high work motivation and high performance, financial rewards should be provided. Conversely, staff with lazy work and poor professional ability should be punished appropriately. As a result, the professionalism of the staff has been improved, the business ability has been enhanced, and the sewage treatment work can be carried out smoothly.

2.2 Strengthen investment

Only a reliable funding base can improve the sewage treatment process and promote the smooth development of sewage treatment work. At present, the source of funds for sewage treatment plants in my country generally comes from government agencies. However, the limited funds of government agencies have restricted the healthy development of sewage treatment plants to a certain extent. Therefore, in order to be able to operate in a more orderly manner, the sewage treatment plant must receive more capital injection. First, it can raise social funds from within the community and seek help from local enterprises or social organizations. Build a sound sewage treatment system I to reduce the difficulty of sewage treatment and reduce treatment costs. To achieve a win-win situation with local enterprises; second, seek social help, seek help from groups with high social benefits, and temporarily relieve financial pressure; third, government agencies must pay attention to urban sewage treatment, and strengthen investment in accordance with the actual situation of the city. The multi-pronged approach ensures the reliability of funds and injects a steady stream of vitality into the sewage treatment plant, thereby ensuring the smooth development of the sewage treatment plant's work.

2.3 Optimize the water supply and drainage system

The operating efficiency of the water supply and drainage system directly affects the quality of urban sewage treatment. my country is a populous country with overpopulation in cities, high water pressure, and high production of sewage. Obviously, it has been unable to meet the needs of the society by blindly following the diversion and centralized treatment technology of the past. In recent years, the speed of urbanization in our country has been accelerating, and cities must continue to optimize their water supply and drainage systems, and innovate and adjust in light of the actual local conditions. If it is a southern city with a lot of precipitation, when the sewage is treated, it can be treated by means of interception, so as to avoid excessive rainfall and increase the task of sewage treatment. In the treatment of septic tanks, the method of diversion is generally used. In this process, new methods and equipment can be introduced to improve the working efficiency of the water supply and drainage system in an all-round way and enhance the quality of sewage treatment.

2.4 Optimize sewage treatment methods

Nowadays, sewage treatment plants in our country are generally constructed by direct capital injection from government agencies, and their overall operation is similar to that of public institutions. Therefore, in the process of carrying out actual work, sewage treatment plants often exhibit the characteristics of slow work and low efficiency. If you want to improve the efficiency of urban sewage treatment and meet the needs of the city, the author believes that it is necessary to optimize the sewage treatment methods based on the actual situation. Government departments must continue to reflect, adjust their operating models, and enhance the efficiency of sewage treatment plants. Only in this way can the core competitiveness of the sewage treatment plant be improved and the rapid development of the city can be promoted.

2.5 Reduce the cost of water resources development

Nature's resources are limited, especially water resources. Over the years, my country's freshwater resources have been decreasing at a rate visible to the naked eye, resulting in a continuous decline in the utilization rate of water resources. In this context, the cost of developing water resources has gradually increased, restricting the speed of urban development. If urban sewage treatment plants can treat sewage into water quality that meets relevant standards, then it can effectively guarantee water resources and reduce water resources development costs. In this way, the reuse of sewage can be realized, the utilization rate of sewage can be enhanced, and the pressure on my country's water resources can be alleviated.

Concluding remarks:

With the acceleration of urbanization, the society's requirements for sewage treatment plants are increasing. In order to provide urban residents with a better living environment, the sewage treatment plant must continuously optimize its own treatment technology, build a sound management system, improve the utilization rate of sewage, actively seek help from social forces, absorb reliable funds, and take a multi-pronged approach to improve The efficiency of sewage treatment meets the needs of social development.

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