

Research on the Supervision Laws of Land-based Pollution Caused by Sewage outlets into the sea from the Perspective of the "Marine Environmental Protection Law"

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ABSTRACT

With the advancement of marine ecological environment governance, the problem of land-based pollution caused by marine sewage outlets into the sea has gradually become an important factor restricting the modernization of marine ecological environment governance system and governance capacity. Starting from the current situation of the sewage outlets into the sea, the impact of the sewage outlets into the sea on the marine ecological environment and the necessity of controlling the sewage outlets into the sea are analyzed, and the law is used as an effective means and tool for social governance to study the legal measures for the treatment of the sewage outlets into the sea in China. Among the relevant legislation on the treatment of sewage outlets into the sea, the "Marine Environmental Protection Law" is a special law to reduce marine pollution and protect the marine ecological environment. Relying on the "Marine Environmental Protection Law", considering the pollution caused by the sewage outlets into the sea from a legal perspective, this paper studies the feasibility and operation shortcomings of the filing system in the treatment of the sewage outlets into the sea in China, analyzes the management status of the existing total pollution discharge control system on the sewage outlets into the sea, and focuses on the regulatory limitations of the existing legal system on the discharge of pollutants into the sea caused by the sewage outlets into the sea. Then, corresponding legal suggestions are put forward from the perspectives of improving the specific and detailed legislation of the management of sewage outlets into the sea, improving the loopholes in the regulatory system, promoting the comprehensiveness of the regulatory system, and increasing the public's participation in the prevention and control of pollution in the marine environment.

Keywords: "Marine Environmental Protection Law", Sewage outlets into the sea, Land-based pollution, Pollution prevention, Marine administration.

1. INTRODUCTION

During the "Thirteenth Five-Year Plan" period, China's marine economy development momentum is good, marine industry is increasingly playing an important role in China's economic development and social development. While driving economic development, the problem of marine pollution is also becoming increasingly serious, and economic development must ensure the safety of the marine ecological environment. The protection of the marine ecological environment should not only focus on the ocean but also focus on the land issues facing the sea, and the sewage outlets into the sea,

as the connection between the sea and the land, are bound to become a key factor in marine ecological governance. To form a "land-sea coordination" marine governance pattern, it is necessary to focus on solving the problem of land-based pollution caused by sewage outlets into the sea, use legal means to improve the existing management system of sewage outlets into the sea from the perspective of the "Marine Environmental Protection Law", and promote the comprehensive and systematic supervision system of sewage outlets into the sea, which has become an important topic in marine environmental governance.

2. LAND-BASED POLLUTION CAUSED BY SEWAGE OUTLETS INTO THE SEA

2.1 Current Situation of Land-based Pollution Caused by Sewage Outlets into the Sea

According to the "2020 Communiqué on the State of China's Marine Environment"(hereinafter referred to as the "Communiqué") issued by the Ministry of Ecology and Environment of the People's Republic of China on May 26, 2021, through the monitoring of 442 industrial pollution sources with a daily sewage discharge of more than 100 cubic meters, the total discharge of industrial pollution sources in direct sea discharge reached 712,993 million tons in 2020. Compared with the data in 2015, during the "13th Five-Year Plan" period, the amount of sewage from direct sea pollution sources fluctuated and increased compared with 2015.¹ Through the data of the "Communiqué", it can be seen that land-based pollution caused by sewage outlets into the sea has become an important source of pollution in the marine environment, and has become an important constraint restricting the governance of the marine ecological environment and the green and healthy development of the marine industry.

In response to the problem of land-based pollution of the marine environment, the state has continuously promulgated relevant laws and regulations over the past 30 years to regulate land-based pollution through legal means. So far, a policy system has been formed, including 17 relevant laws and regulations, including the "Law of the People's Republic of China on the Protection of the Marine Environment", the "Regulations of the People's Republic of China on the Prevention and Control of Pollution Damage to the Marine Environment Caused by Land-based Pollutants", and 7 other laws and regulations, including the "Law of the People's Republic of China on the Prevention and Control of Water Pollution", and the "Interim Measures for the Administration of Aquatic Germplasm Resources Protection Areas", which clearly stipulate the issue of sewage outlets into the sea.

1. 2020 Communiqué on the State of China's Marine Environment, Ministry of Ecology and Environment of the State Council, 2021. (in Chinese)

2.2 Necessity of Treatment of Sewage Outlets into the Sea

According to the "2020 Bulletin of the State of China's Marine Environment", the discharge of land-based pollutants caused by sewage outlets into the sea continues to increase, which is bound to have a certain impact on the marine ecological environment. From the perspective of marine water quality, the water quality in the sea area near the sewage outfall will deteriorate due to sewage discharge, which will frequently cause water quality disasters such as red tide and green tide. According to the monitoring, the pollutants into the sea caused by the sewage outfall contain a large amount of nutrient salt, which flows into the sea and pollutes the sea water. The nutrient salt in these discharges contains a large amount of inorganic nitrogen and phosphate, which is the key reason for the frequent occurrence of red tides. In addition, the oceans have their own self-purification capacity. If the pollutants discharged from the sewage outlets into the sea have been accumulated in the sea water, they will reach the critical point of the self-purification capacity of the oceans. When they break the critical point, the marine disasters caused by marine pollution will also follow. In the past ten years, red tides have occurred frequently in China's sea areas, and at least 10 red tides have occurred in the Bohai Sea every year. These disasters have seriously affected the marine ecological security. To strengthen the marine ecological governance, we should fundamentally solve the land-based pollution problem caused by the sewage outfall into the sea. In addition to causing marine disasters, if the sewage outlets into the sea are not effectively controlled, the sewage outlets into the sea will destroy the marine biodiversity and affect the development of the marine fishery industry. With the increase of pollutants at the sewage outlets into the sea, the marine water quality continues to deteriorate, and the marine organisms are affected by the marine water quality. The biological species will gradually show a downward trend with the increase of pollutants, and the marine ecosystem will be damaged, which will lead to further aggravation of the degree of pollution in the marine waters. According to the bulletin data over the past 40 years, the species of marine organisms in China have been decreasing year by year, and the marine ecology has borne the cost for the development of the marine economy. The destruction of marine biodiversity in many sea areas by pollutants is closely related to human society, and the destruction of marine ecology is bound to affect

social development and human health. Many pollutants in the pollutants discharged from the sewage outfall into the sea will accumulate in marine organisms and gradually produce toxicity. These organisms will directly lead to the food safety of marine products, affect human health, and bring huge safety costs to human society along with human fishing and consumption. The increase of pollutants will lead to the impact on the fishery industry, which will further hinder the development of marine economy. To sum up, the pollution caused by marine sewage outlets into the sea has an important impact on the marine ecological environment and even the overall development of human society. In order to protect the marine ecological environment, and improve the marine ecological governance capacity and the modernization of governance level, it is necessary to have strong legal means to regulate the issue of sewage outlets into the sea.

2.3 Relevant Provisions of the Marine Environmental Protection Law

The "Marine Environmental Protection Law", as a professional regulation, is formulated to protect and improve the marine ecological environment and prevent pollution damage to the marine environment. The "Marine Environmental Protection Law" is an important legal basis for the treatment of land-based pollution caused by sewage outlets into the sea. In the "Marine Environmental Protection Law", provisions are made for the treatment of sewage outlets into the sea. In terms of the subject of supervision over the marine environment, it is determined that the competent administrative department of environmental protection under the State Council has the right to supervise and manage the marine environmental protection, and to achieve the purpose of marine environmental protection through guidance, coordination and supervision, which is embodied in the investigation, monitoring, monitoring and evaluation of the marine environment, so as to prevent the damage to the marine environment caused by the dumping of wastes from the sea. In addition, the "Marine Environmental Protection Law" in Chapter IV "Prevention and Control of Pollution and Damage to the Marine Environment from Land-based Sources", Articles 29 to 39, provisions are made on the standards for discharging land-based pollutants, the location of the sewage outlets into the sea, the main department for the management of land-based source pollution, the units that discharge land-based pollutants, and

the types of sewage that are prohibited from discharging into the sea area. At the same time, the law also clarifies the corresponding legal liabilities for violations of the relevant regulations on sewage outlets into the sea in Chapter 9.

In 2017, the state revised the "Marine Environmental Protection Law", and the land-based problem caused by the sewage outlets into the sea became the key issue of the revision in 2017. This revision locked the regulatory loopholes under the existing supervision system of land-based pollutant discharge, absorbed the existing supervision and management experience of the sewage outlets into the sea, integrated the concept of "land-sea coordination" into the supervision process and institutionalization of the sewage outlets into the sea, strengthened the supervision of the weak supervision of the sewage outlets into the sea, and promoted the systematization of the supervision system of the sewage outlets into the sea.

3. ANALYSIS OF PROMINENT LEGAL ISSUES IN MARINE SEWAGE OUTLETS INTO THE SEA UNDER THE "MARINE ENVIRONMENTAL PROTECTION LAW"

3.1 Filing Management System for Sewage Outlets into the Sea

The revised "Marine Environmental Protection Law" in 2017 has changed its management system, and the requirements for the location of the sewage outlets into the sea have changed from administrative examination and approval to the filing system compared with before, and since then, the "filing system + prohibition regulations" has become the overall pattern of supervision of the sewage outlets into the sea in China. However, such an institutional pattern cannot be well adapted to the current situation and background of China's governance, and the shortcomings of the filing system have gradually been exposed in practice. A big reason why the filing system can not play a role in the prevention and control of marine sewage outlets into the sea is that it is constrained by the existing level of scientific research, from the current mastery of land-based pollutants caused by marine sewage outlets into the sea, China's existing scientific research level can not achieve a comprehensive grasp and accurate analysis of pollutants caused by marine outlets. Under such conditions, the use of the filing system of marine

sewage outlets into the sea can not achieve source control of pollutants from marine outlets, resulting in pollution loopholes.

In addition, the filing system is different from the approval system, relying on a mature systematic supervision and management system, but when the progress of China's marine anti-pollution management system is not perfect enough, there is a phenomenon of disjointed management links and separate administration, the orderly operation of the filing system requires the subsequent management links to cooperate with each other, and requires a long-term chain of supervision mechanisms for prevention and control. In the existing context, due to the lack of prevention and control and supervision, as well as the lack of specific laws to provide detailed provisions on the filing system, there are different requirements for filing procedures in various places.

It is undeniable that the existing filing system is not perfect, first of all, behind the filing system is the concept of source treatment of marine pollutants, source treatment has certain requirements for the identification of land-based pollution sources and the accurate analysis of the pollution path of land-based pollution, and the existing level of mastery of land-based pollution pollutants cannot well support the use of the filing system; In addition, the filing system has certain limitations. In order to solve the pollution problem caused by the sewage outfall into the sea through the filing system, it is not enough to only through the filing system, and it needs to be coordinated with the process control system. Against the existing background of China, there are still problems of the lack of supervision of the whole chain of fixed pollution sources of landing sources and the lack of prevention and control of the whole process, and it is inevitable that problems will arise in the filing system when fighting alone. It is necessary to continuously improve the filing system for the all-round prevention and control of sewage outlets into the sea, clarify and concretely define procedures and requirements, and realize comprehensive and meticulous management of sewage outlets into the sea at an early date.

3.2 Total Amount Control System of Key Sea Areas

When the "Marine Environmental Protection Law" was revised in 1999, the total amount control system of key sea areas was added. As an important system, the total amount control system of key sea areas played an important role in the prevention and

control of land-based pollutants caused by marine sewage outlets into the sea. This system allocates the indicators of the pollutants discharged from the main pollution sources of land-based pollution, and at the same time, cooperatively controls the concentration of the pollutants from the main pollution sources to achieve the goal of controlling the total amount of pollutants discharged into the sea. However, after the system was formulated, the implementation results in practice are not ideal. There is no specific legislation for this system, and there is no standardized and clear legal system to ensure the implementation of the total amount control system in key sea areas. Specifically, apart from the provisions of Article 3 of the "Marine Protection Law" on this system, it is not reflected in other specific regulations. Article 3 of the "Marine Protection Law" stipulates that "the specific measures shall be formulated by the State Council". However, there has been no corresponding "specific measures" issued to specify the total amount control system of the sea areas, which further caused difficulties in the implementation of the total amount control system of key sea areas, which is difficult to implement effectively, and can not achieve the legislative purpose of preventing and controlling land-based pollutants. For this reason, in practice, the total amount control and monitoring can only be carried out on the sewage outlets into the sea in a few key sea areas, and the overall control and monitoring situation can not be formed in all sea areas. The existence of legal loopholes has led to the increase of the number of sewage outlets into the sea and illegal pollutants into the sea, damaged the marine environment and marine ecology, and led to irreparable serious pollution. To reduce the adverse impact of land-based pollution caused by sewage outfall on the sea, it is necessary to respect the actual environmental carrying capacity and self-cleaning capacity of the sea, and make corresponding detailed legislation on the relevant prevention and control system, so as to provide specific plans for marine pollution prevention and protection.

3.3 Supervision System for Sewage Outlets into the Sea

In addition to the above-mentioned lack of detailed legislative improvements for some systems, the supervision system for land-based pollution caused by sewage outlets into the sea should be strengthened in terms of top-level design. First of all, according to the current Marine Environmental Protection Law, the requirements for the

installation of sewage outlets into the sea are only reflected in Article 30, but it is far from enough to achieve effective supervision of sewage outlets into the sea. Under such legal regulations, the focus of supervision is on the pre-access link set up for sewage outlets into the sea, and there is no full-chain supervision of sewage outlets into the sea. This has led to a preference for prior access in the allocation of China's marine environmental management forces. At the same time, China's pollution permits are not complete and sufficient to achieve full coverage, which makes the supervision of the sewage outlets into the sea more obvious. In addition to continuing to make efforts to improve the overall supervision, the environmental assessment of the construction project of the sewage outlets into the sea or the urban and rural planning of the location should be taken into account when formulating and improving the supervision system for the setting of the sewage outlets into the sea. In practice, due to the difference between the subject making the environmental assessment and the administrative subject responsible for the setting of the sewage outlets into the sea, the environmental assessment has gradually lost its effectiveness, leaving the construction party of the sewage outlets into the sea with loopholes to follow, and evading the relevant supervision by applying separately, resulting in the illegal setting of the sewage outlets into the sea.

The existing environmental monitoring at the sewage outlets into the sea still cannot achieve comprehensive monitoring. From the existing provisions of the "Marine Environmental Protection Law", the ecological environment monitoring of the sewage outlets into the sea should be carried out in accordance with the division of labor of the national marine environment monitoring network to carry out environmental quality monitoring and routine monitoring of the sewage outlets into the sea, but it is not reflected in the existing provisions in law enforcement, active monitoring of pollution sources at the sewage outlets into the sea and self-monitoring. In addition, according to the existing provisions of the "Marine Environmental Protection Law", there is no corresponding classification and grading system for the monitoring of sewage outlets into the sea, the corresponding supervisory subjects and responsible entities are not determined according to the types of sewage outlets into the sea, and different detailed provisions are made for different types of sewage outlets into the sea. In order to enhance the effective supervision of pollution sources, through the existing policy, only

the requirements for regular monitoring of direct sea pollution sources with a discharge volume of more than 100 cubic meters have been achieved, which is far from meeting the need for monitoring of sewage outlets into the sea and reducing the adverse impact of sewage outlets into the sea on the environment.

Not only that, the imperfection of the supervision system of the sewage outlets into the sea also leads to the unclear supervision responsibilities and unclear supervision authority of the regulatory authorities in the supervision process. In addition to the ecological and environmental department to supervise the sewage outlets into the sea, the supervision of the sewage outlets into the sea involves the local water department, agricultural department, transportation department and other full-time departments and local governments at all levels. In practice, the upper-design does not clearly divide the regulatory responsibilities of each department, which leads to the overlapping responsibilities of the management department. At the same time, there is no effective communication mechanism between the various regulatory departments of the sewage outlets into the sea for coordination, and there is a situation of chaotic supervision and multi-party governance, which will not only lead to inefficient supervision, but also damage the authority of government departments, resulting in a vicious circle of sewage outlets into the sea management.

As mentioned above, there is a lack of effective coordination and communication between the supervision and management departments of the sewage outlets into the sea, not only the management department, but also the responsible subject of the sewage outlets into the sea and the public lack of effective information communication, which causes the asymmetry of the supervision information of the sewage outlets into the sea. In the process of actual management, the discharge information of land-based pollutants entering the sewage outlets into the sea is generally in the hands of the responsible entity, and the responsible entity is often unwilling to share pollutant-related information with the management department and the public out of interest considerations. Due to the lack of effective information, the management authorities cannot achieve targeted supervision of the sewage outlets into the sea, which leads to the increase of regulatory loopholes and the inefficiency of supervision. The public cannot obtain timely information about pollutants entering the sewage outlets into the sea, and there is no

effective government regulatory feedback channel, and as the actual perceiver of pollution, the public cannot play an effective role in supervising the sewage outlets into the sea. With the rapid development of today's social network, the public will choose the media and online channels to expose the pollution problems caused by the sewage outlets into the sea around them, which also causes tension between the public and the supervision department of the sewage outlets into the sea, which is not conducive to the development of the management of the sewage outlets into the sea and social stability.

4. LEGAL ADVICE ON REGULATING ILLEGAL INSTALLATION OF SEWAGE OUTLETS INTO THE SEA

4.1 Relying on the "Marine Environmental Protection Law" to Improve Relevant Legislation

It can be seen from the above that the specific measures in Article 3 of the "Marine Protection Law", which stipulates that "specific measures shall be formulated by the State Council", have not been promulgated, and at the same time, the current law has few normative provisions and corresponding punishment measures for illegal situations in the supervision of pollutant outlets, showing an isolated state. At present, the legal supervision and norms have not been systematized, and the relevant provisions of each law have a focus on unilateral matters, and the pollution of the sewage outlets into the sea needs to be improved at the legislative level.

In view of the ambiguity in the classification and identification criteria of outfalls into the sea and the inadequate regulation of land-based pollution caused by outfalls into the sea, the Ministry of Ecology and the Environment can play an organizing and coordinating role and jointly issue relevant regulations with other departments involved in pollution from outfalls into the sea. Based on the "Marine Environmental Protection Law", the technical requirements for outfalls into the sea can be incorporated into the "Second National Pollution Source Census System", and technical specifications and professional regulations can be formulated specifically for outfalls into the sea to make the management system for outfalls into the sea more detailed, comprehensive and specific. In the process of revising relevant laws, it is necessary to clarify the

regulatory body, clarify the division of responsibilities between local and ecological environmental departments, divide the responsibilities of the management bodies of various pollutant discharge units, change the problem of fuzzy and repetitive regulatory bodies before, promote the formation of the full coverage of the regulation of sewage discharge outlets at sea, clarify the main position of the ecological environment department in the management of sewage discharge outlets at sea, and cancel the relevant administrative body qualifications of other departments, which will enable the management of the sewage outfall into the sea to have a clear main body, a division of powers, and a division of duties. Not only that, in the process of revising relevant laws and regulations, it is also necessary to pay attention to the wholeness, strengthen the connection of legal provisions, ensure the smooth implementation of the new law, take into account the social impact and social effects while protecting the marine environment in view of illegal problems, reasonably set the severity of illegal punishment according to the pollutant outlet, and clarify the legal responsibility for illegal acts.

4.2 Improving Relevant Regulatory System

Legal means are the most powerful guarantee and the most effective means to improve the regulatory system of sewage outlets into the sea. To improve the regulation system of sewage outlets into the sea and implement the whole-process regulation of pollution sources of land-based pollution, there is a necessity to adjust the traditional supervision idea and regulation system focusing on prevention, and combine the access rules of sewage outlets into the sea with the environmental assessment of the construction project of sewage outlets into the sea and the local sewage permit system, so as to reflect the requirements of sewage outlets into the sea setting in the environmental assessment of the project construction on the sewage permit. In this way, the coordination and comprehensiveness of the regulatory system has been increased. The unified standard is conducive to reducing regulatory loopholes, improving the precision of marine governance, and providing regulatory guarantee for winning the battle of pollution prevention and control. Specifically, it is a necessity to promote the connection between the environmental impact assessment of the project of the sea outfall and the access system of the sea outfall, promote the coordination of the supervision of the sea outfall

and the pollution source of the discharged pollutants, and promote the matching of the sea water quality standard system of the monitoring system of the sea outfall, so as to make the supervision system more comprehensive.

At the same time, the regulatory system should reflect the classification and detailed management of the sewage outlets into the sea, clarify the types and standards of various sewage outlets into the sea, as well as the corresponding types of technical demonstration routes and regulations, and then adjust the regulatory intensity reasonably according to the different pollutants of different sewage outlets into the sea and the different impact on the environment, so as to reasonably allocate administrative resources, improve regulatory efficiency, and save regulatory resources. With reference to the classified management experience of the "Action Plan for the Comprehensive Treatment of the Bohai Sea", while classifying the sewage outlets into the sea, the specific areas with greater harm can be regarded as new sewage outlets into the sea, and absolutely prohibited areas. The classified supervision system of the sewage outlets into the sea can be improved through certain restrictions. The supervision should be demand-oriented, based on different types of supervision, clarify the relationship with the supervision objects, distinguish the types of industrial drainage, aquaculture wastewater drainage, Chinese sewage drainage and other sewage types, make a management list, divide different main supervision subjects according to the impact of different sewage on the marine ecology, formulate corresponding supervision measures, and carry out classified management.

4.3 Increasing Public Participation

To reduce land-source pollution caused by sewage outlets into the sea, it is a necessity to not only strengthen supervision, but also let the people participate in the process of marine pollution prevention and control, and let the public widely participate in the process of controlling land-source pollution, which is a mature prevention and control path in developed countries and has played a huge role in the process of pollution prevention. In order to give full play to the public's power, there is a must to provide channels for the public to participate in the prevention and control of pollution at the legal level, make use of the filing system for the setting of sewage outlets into the sea, make the filing information public, which will

enable the public to have access to more information about land-based pollution, broaden the public's supervision and suggestions on such outlets as the sea, increase the public's smooth dialogue channels, increase the enthusiasm of public participation in marine environmental protection, protect the public's right to know, and promote the public's right to participate. At the same time, the government should actively play a leading role and use various media to strengthen the public's awareness of participating in the treatment of sewage outlets into the sea and the protection of the marine ecological environment. The main body of public participation should be broad, and enterprises, colleges and universities, non-governmental organizations and individuals should be mobilized to participate in the treatment of land-based pollution caused by the sewage outfall into the sea. This will not only help all sectors to express different interests, give play to the advantages of different disciplines and perspectives, and make the policy formulation more scientific and comprehensive in taking into account the interests of all parties. It also helps to improve the public's awareness of environmental protection, make the public understand the relevant information of marine ecological governance, strengthen the quality education of the public, and make the implementation of relevant policies on pollution prevention more efficient.

5. CONCLUSION

In the long history of the survival and development of human society, the ocean has always been an important issue that cannot be ignored in social development and progress. The historical development experience tells people that the country is prosperous when facing the sea, and weak when closing the sea. Based on the historical orientation of the new era, to build a powerful marine country, it is necessary to balance the relationship between the development of the marine economy, the protection of the marine ecological environment and human health. On the basis of the "Marine Environmental Protection Law", in view of the pollution caused by marine sewage outlets into the sea, through legislative means, it is also necessary to improve the corresponding punishment measures of the current law on the illegal situation of the supervision of sewage outlets into the sea, and issue relevant laws and regulations to solve the problems of fuzzy classification and identification standards of sewage outlets into the sea and insufficient supervision of land-based pollution

caused by sewage outlets into the sea. Through the improvement of the system, there is a must to strengthen the supervision of the sea outfall, take improving the quality of the marine environment as the guide, and take the principle of precise pollution control as the principle, promote the connection between the environmental assessment of the sea outfall project and the access system of the sea outfall, and promote the coordination of the supervision and management of the sea outfall and the pollution source of the discharged pollutants. It is significant to let the people participate in the prevention and control of marine pollution, enhance the people's concept of marine ecological protection, and reduce the difficulty of marine ecological governance.

ACKNOWLEDGMENTS

Fund project: "Innovation and Practice of Marine Legal Talents Cultivation System in the Context of the Marine Power in the New Era", a key project of the "13th Five-Year Plan" of Liaoning Provincial Education and Science in 2020, (JG20DA003)

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