

Research on Quality Management Based on Strengthening Environmental Monitoring

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Abstract. Natural environment is the premise of the survival and development of human society. With the sustainable development of society, the proposal of national green development strategy, the implementation of government environmental protection measures, people's awareness of environmental protection gradually improved, green sustainable development, environmental protection and monitoring have become the focus of the world. In the work of environmental protection, it is very important to strengthen the quality management of environmental monitoring. This work is mainly carried out by means of science and technology, to optimize and improve the environmental management system, and to monitor the environmental data according to the standard of "comprehensive, accurate, objective and true". Therefore, in order to better carry out environmental protection work, we must do a good job in environmental monitoring and quality management, and we can improve the efficiency of environmental protection under the premise of correct data. In view of this, the paper thinks deeply on the actual situation of environmental monitoring quality management, and puts forward relevant optimization strategies and measures to help the environmental monitoring cause develop better.

Key words: environmental protection; environmental quality monitoring; monitoring system management; green development; sustainability.

1. Introduction

Strengthening environmental monitoring is the premise for the effective development of environmental protection work. The task of environmental monitoring stations is to monitor environmental quality in real time and make environmental testing reports according to the data; supervise the monitoring of environmental pollution sources, eliminate hidden dangers and suppress risks in time. The testing station should not only complete the work on time, but also ensure that the environmental quality reaches the standard, escorting the growth and development of every tree, flower and tree. However, the environmental monitoring work in the process will be affected by many factors, such as government, law enforcement and other relevant departments, monitoring management system is not flexible to strain emergencies, so it is necessary to analyze the shortcomings in the work, combined with the actual situation to improve the monitoring management system, improve the quality of environmental monitoring, coordinate the relationship between the environment and the economy and society.

At the present stage, the national policies and the government pay great attention to the environmental monitoring cause, and a lot of funds are invested in the cause to strengthen the introduction of technical personnel. Environmental monitoring provides reliable support for environmental management, which is an inevitable requirement to adapt to the deepening environmental management. Therefore, environmental monitoring staff need to improve their professional and comprehensive quality under the new historical conditions, and constantly explore environmental monitoring quality management means. This paper will explore what kind of relevant systems established and how to take measures to prevent monitoring quality risks under the general requirements of improving the quality management level.

2. The Necessity of environmental monitoring work

Why do we want to strengthen the implementation of environmental monitoring work? What is the need for this work? In order to explore the importance and necessity of the work, we should first fully understand the context in which the work is carried out.

(1) Environmental monitoring is the premise of environmental protection work, but also the cornerstone of promoting ecological civilization construction. The data of monitoring stations can objectively reflect the environmental quality and pollution control effect, which is the basis for the implementation management and decision-making of environmental protection departments. "Comprehensive, accurate, objective, and true" [1] The detection data reduces the work content of environmental protection management link, and saves time and operation costs for relevant departments.

(2) The quality of environmental monitoring is linked to social credibility. As the country and the people's attention to the environment, environmental monitoring industry supervision from various aspects, some responsible for monitoring analysis office and monitoring station are constantly exposed quality problems, monitoring work slack, false data, environmental pollution, etc., directly lead to the public doubt of the national credibility and the government public image. The most important point is that science and technology departments and enterprises also provide technical support for the development of environmental monitoring industry based on the quality of monitoring work. If the quality of environmental monitoring is always substandard, it is difficult for the industry to obtain capital, technical and talent support, and environmental problems will be difficult to be properly solved. Therefore, only when environmental monitoring management is paid attention to and strengthened can we comprehensively improve the social credibility of environmental monitoring.

(3) The quality of environmental monitoring is a microcosm of the national macro-control. In order to realize the "five-in-one" social layout and enter the modern socialist society, the state has continuously issued policies to strictly require environmental monitoring and quality management work. The Monitoring Data Measures issued by the Ministry of Environmental Protection in December 2015 [2], The Environmental Monitoring Opinions jointly issued by all departments in September 2017 [3] To the current deepening reform system, in order to seriously investigate and punish environmental monitoring data fraud behavior, the national supervision and implementation of environmental monitoring management work has been on the way. At present, we have made clear the importance of establishing a comprehensive quality assurance responsibility system for environmental monitoring data, and use the prevention and punishment mechanism to curb the fraud of environmental monitoring data, and ensure the strong support for environmental management under the supervision of the state and the government.

3. Monitoring the quality management work content

3.1 Characteristics of environmental monitoring Work Dynamic change of

Due to the working nature of its monitoring station, the monitoring work will change with the changing environment. Therefore, first of all, we should strengthen the adaptation degree of the monitoring work to the environment, and make a timely detection of the environment. Secondly, the formulation of work objectives, not only to facilitate the staff to take measures to carry out targeted prevention and control, flexible implementation of environmental protection strategies. Thirdly, it is necessary to establish the concept of overall development. This work involves multiple disciplines, and the work content is tedious, such as sample collection, distribution, etc., so we should realize the overall coordinated operation of all departments, and carry out the scientific and reasonable work. Finally, the work is scientific, professional and hierarchical [4]. In the implementation process must be in accordance with the steps and levels, step by step, respect for the law of nature, in order to ensure that the work effect of each link can be fully reflected.

3.2 Principles to be followed in environmental monitoring and management

First, adhere to the principle of practicality. The results of data monitoring must be applied to prove its effectiveness. Under this principle, the development of environmental monitoring work must be reliable and practical, and can find out and solve the problems in environmental monitoring in time.

Second, adhere to the principle of economic applicability. Any project and work must consider the cost input and project expenditure, and the relevant personnel should pay attention to the reasonable control of the cost input of testing institutions on the basis of meeting the monitoring needs.

Finally, adhere to the principle of representativeness. Monitoring stations should distribute the points, ensure the reliability of the collection methods and the representativeness of the data in quantity and quality, so as to provide real and objective data support for the environmental protection work.

3.3 Make good use of environmental monitoring technology

China's monitoring technology is becoming increasingly mature under the efforts of various departments, and shows a trend of diversification, mainly including chemical technology and physics

Technology (applied to instrument analysis, spectroscopic analysis) and biotechnology (judging the environmental quality through the life activities of living organisms in the environment), etc [5]. The disciplines involved are relatively complex and relatively difficult.

4. Monitoring the deficiencies existing in the quality management work

4.1 Lack of attention and weak management awareness

In the process of environmental quality monitoring and management, the relevant personnel have a lack of management awareness, and fail to formulate effective management plans before and in the process of monitoring work, thus causing trouble to the development of environmental protection work. The main reason for this phenomenon is that the person in charge of customs does not pay enough attention to environmental monitoring quality management, so that technical personnel and other operators do not clearly realize their job value and work significance [6]. In addition, the work focus of the staff is generally on monitoring, while ignoring the importance of management, which is easy to lead to monitoring data and information quality problems.

4.2 The professional quality of the relevant staff is not high

Environmental monitoring work requires the direct participation of personnel, so personnel quality will have a great impact on the reliability of monitoring data. With long working time and high pressure, limited funds and difficult outdoor working environment; and increasingly low physical function and health status, the quality and ability of environmental monitoring personnel cannot be effectively improved [7]. In addition, the relevant departments in recruiting environmental monitoring personnel, their comprehensive quality consideration and training is also one of the reasons to environmental quality management and testing.

4.3 Insufficient on-site quality supervision

It is very difficult for the relevant management personnel to control the quality of the whole environmental testing project, and one of the "obstacles" is the quality control in the on-site monitoring, which is the most difficult link. Site uncontrollable factors are more common, and include and involve many aspects, such as geographical factors such as terrain and climate, equipment operation and maintenance, personnel technical operation, project management system, cost control, etc [8]. These factors are both complex and require a lot of time and energy, which puts forward higher requirements for the quality supervision of environmental monitoring site. Even if the relevant monitoring work is completed, some basic quality records cannot meet the relevant requirements of laboratory qualification. Relevant investigation shows that in terms of on-site quality supervision,

China's supervision and management system is not mature and perfect, and also lacks the support of advanced equipment.

4.4 Limited regulatory capacity and the regulatory mechanism is not sound

At present, the phenomenon of environmental pollution and excessive resource exploitation continues, although occasionally improving but soon relapse. The knowledge level of Chinese monitoring technicians has not meet the standard; some environmental monitoring teams are just started; standardized and sound environmental monitoring quality management system has not been established are the problems exposed in our environmental monitoring work.

4.5 Internal audit work is a mere formality

Some internal audit personnel's understanding of environmental monitoring quality management stays in the concept, internal audit work understanding is not in place, most of its work only stay in the form, go a scene. Investigate its reasons, mainly have the following three points: first, the internal audit personnel real power is not big, in the face of the audited department does not cooperate and resistance mood [9], The internal audit department had to connect with it in order to complete the task, and did not put the data reliability in the first place. Second, compared with the monitoring work, the internal audit work is much simpler, and the professional level of the internal auditor lacks a considerable degree of training. Third, the preparation of the internal examination checklist is simple, resulting in the internal examination work simplification, formal, checklist reuse, it is inevitable that there are past data retained traces, affecting the current internal audit work.

5. Optimize the measures for monitoring the quality management efficiency

5.1 Improve the importance of leaders to monitoring quality management, and establish and improve relevant systems

Monitoring station is the basis of environmental monitoring, therefore, the quality awareness of the relevant leaders, the understanding of the value of the post, the importance of the monitoring work, as well as the strong implementation and supervision is the key to the monitoring quality management work. In order to ensure the effective implementation of environmental monitoring quality management, first, the monitoring station should reorganize or optimize the personnel structure to build the master responsibility system; the decision level is composed of technical supervisor, quality supervisor, master of two positions should take full responsibility; the remaining departments and positions perform their own duties; the operation team and technicians are responsible for the framework [10]. Secondly, for the management of internal audit work, the webmaster should attend and preside over the management review meeting, understand the meeting process, grasp and control the work situation and progress report of each unit; make an effective summary for the management system operation and put forward improvement requirements. Finally, since the formulation of the rules must be implemented with high standards and principles, stationmaster and relevant supervision departments to regularly check and implement the implementation of the rules and regulations, formulate assessment methods, for the performance of the department monitoring work to implement reward and punishment measures.

In addition, the environmental monitoring management system should be established to improve the level of environmental monitoring management with the binding force of the system. In the process of system establishment, we should pay attention to the following three points: on the one hand, the management system should be based on the actual situation of the unit itself, take relevant measures, using assessment means and incentive mechanism to restrain personnel, in order to establish the awareness of environmental monitoring quality management. On the other hand, establish a quality prediction mechanism [11]. The process of environmental monitoring will not be smooth sailing, so it is necessary to predict risks, estimate costs, and formulate corresponding emergency response mechanisms. In case of emergency situations or quality problems, the relevant

departments can respond quickly, take measures, and deal with it in the first time. In addition, establish a feedback and evaluation mechanism. In the evaluation of the quality results, the qualified data results are analyzed, and the mistakes of the unqualified work content should be corrected and improved immediately. Through the analysis and comparison of the quality results, a feedback evaluation mechanism is established. In order to prevent errors or omissions of the data, all the previous data should be regularly classified and summarized, and submitted to the internal audit department for review to ensure the accuracy of the data.

5.2 Strengthen publicity and improve the post awareness of all staff

Environmental monitoring quality management cannot be separated from the role of human resources. Therefore, publicity should be conducted and educated to all staff, and the importance of standardized operation and quality supervision should be raised to a new height. Monitoring stations can regularly carry out staff exchange meetings, publicity meetings, etc., to enhance the staff's awareness of responsibility, post awareness, quality awareness, legal awareness [12]. In aims to make all the staff realize that illegal operation and fraud is to bear the corresponding legal responsibility, no quality monitoring information is harmful, harm the country and the people's expectations of environmental monitoring. Post awareness publicity measures must firmly implant the concept of defending the quality of life and preventing monitoring risks into the behavior consciousness of each monitoring personnel.

5.3 Pay more attention to the on-site monitoring work

In view of the difficulty of the above site monitoring work, it is urgent to strengthen the supervision and management of the monitoring site. The specific approach is as follows: on the one hand, to effectively supervise the site operators and technical personnel, try to eliminate human factors (such as unauthorized departure, irresponsibility and other phenomena) caused by quality problems. On the other hand, in addition to the spatial investigation and monitoring of the site, the monitoring work should be supervised and inspected regularly in time, aiming to ensure that the operation of the relevant staff conforms to the corresponding technical specifications, in order to reduce mistakes [13]. In addition, in view of the supervision and management system is not mature and perfect, but also lack of advanced equipment support, the relevant departments should increase the investment in equipment technology, establish and improve the supervision system. Self-internal supervision has been unable to meet the current environmental monitoring quality of high standards, strict requirements. Therefore, the monitoring station can take the initiative to invite superior departments, brother monitoring stations or third-party testing institutions to guide and supervise, supervise the quality management of environmental monitoring stations from the perspective of a third party, can dig its pain points and weaknesses, not only effective, but also can conduct technical exchanges while supervising, successfully solve quality defects.

5.4 Strengthen the training intensity and improve the professional quality of the monitoring personnel

In view of the above low professional level and awareness level of monitoring personnel, first of all, we should make it clear that their professional level and comprehensive quality are the key to ensure the quality and efficient development of monitoring work. Under the background of the rapid development of high and new technology, new technologies and new standards for environmental monitoring emerge in an endless stream. We should actively introduce relevant technologies and talents to escort the environmental monitoring and management work. Therefore, it is imperative to strengthen the training intensity and improve the professional quality of the monitoring personnel. At present, the ways for employees to receive training are continuing education training, pre-job training, superior centralized training, special monitoring project training and other channels [14]. The staff should actively participate in the training to improve their professional level and comprehensive quality. Through the appropriate intensity of training, to improve the monitoring personnel in the

ability to analyze and solve problems at work, effectively enhance their grasp and application of monitoring business, standards and norms and technical methods, and better lay a good foundation for China's environmental protection work [15].

6. Conclusion

To sum up, in order to realize the green development and sustainable development of China's environmental protection work, the environmental management work continues to deepen, and accordingly, the status of environmental monitoring is gradually highlighted, and it is of great practical significance to strengthen the improvement of its management level. To ensure the normal development of environmental protection work, in view of the relevant leadership and staff of the environmental monitoring work, imperfect management system, inadequate monitoring, strict supervision and management system and personnel professional level and professional quality, environmental monitoring department, in the process of solving the monitoring problems, constantly explore management, innovative technology, implement effective optimization measures, to ensure the accurate and reliable monitoring results, to promote the long-term development of environmental management.

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