

# **Application Analysis of Environmental Protection Construction in Construction Engineering Management**

**Ren Jianhua, Liu Zhixia\***

Nanchang Institute of Technology, Nanchang, Jiangxi Province, 330044, China

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**Abstract:** With the acceleration of modern urbanization, there is more and more demand for urban function, and there are obvious differences between municipal architectural engineering and traditional architectural engineering in the current era. At present, people pay more attention to the concept of environmental protection. In addition to economic benefits, there are also severe environmental damage problems brought by industrial progress. How to seek living space in the development has also become the focus of attention in the world. Due to the obstacles of objective pollution factors, in some buildings, the concept of environmental protection has not yet been fully embodied. Only by constantly exploring and studying the technical personnel of the construction industry in our country can we actively realize the unity of environmental protection consciousness and the construction industry. The great goal of development fundamentally implements the strategic requirements of sustainable development in our country.

## **1. Introduction**

### **1.1. Related contents of environmental protection construction**

Environmental protection construction, which has become green construction, still belongs to the category of building construction, but unlike it, environmental protection construction is more in line with the needs of modern people. With the continuous development and progress of the city, people's ideological level is also constantly improving. Over time, people have realized that the damage caused by industrial production to the environment is urgent, so we should integrate the concept of environmental protection in all kinds of industries in order to establish a long-term strategic development goal. In the construction industry, there are many places where environmental awareness can be applied, such as building materials, technology and so on, can be reasonably allocated to achieve resource savings. And the construction enterprises are pursuing the market economy. At the same time, the environmental protection construction can also be used to reduce the cost and waste of the project, so as to reasonably improve the project income and reduce the unnecessary investment of human and material resources [1]. As a construction enterprise in the new era, it is necessary to conform to the development concept of the new era in order to make enterprises make common progress with the times, and the process of paying attention to environmental protection and ecological interests also depends on the rapid development of modern science and technology. The innovation and application of all kinds of construction materials provide help and support for environmental protection construction, so that managers can be more direct and clear in engineering management [2]. On the basis of ensuring the quality of Construction Engineering, improve the use of Resources.

### **1.2. Relationship between construction engineering management and environmental protection construction**

Environmental protection construction is a new concept put forward in the new era, which is different from the traditional construction industry construction concept. It requires managers to transition and transform the focus of work from unilateral economic benefits to the level of "economic environment" benefits in order to meet the needs of the development of the times [3]. To

a certain extent, the conservation of energy and resources also reflects the protection of the ecological environment in the construction industry, and the research and development of core building technology and materials must also be put on the agenda. The modern management mode of construction engineering should also have the consciousness of environmental protection, such as the allocation of personnel, which can be changed from the traditional manual construction mode to the cooperation of “artificial machinery”. In order to establish the reasonable allocation of labor resources in environmental protection construction. In the management of hydropower resources at the construction site, it is also necessary to investigate the details and crack down on the phenomenon of wasting construction resources [4]. In the past construction site, there is often a large number of waste of building materials caused by unreasonable stacking of building materials, which is diametrically contrary to the environmental protection consciousness of contemporary people. In order to establish a good development prospect of construction enterprises, managers should strictly according to the construction requirements under the concept of environmental protection to carry out detailed provisions, so that the construction project can reduce the waste of resources, fully reflect the awareness of environmental protection, and make the construction project carry out in an orderly and smooth manner [5].

## **2. Innovative ideas of Environmental Protection Construction in Construction Engineering Management**

### **2.1. The professional development of human resources**

For any industry, human resources are the driving force of industry development, but also the fundamental conditions for industry innovation. The influx of human resources is like injecting new vitality into the industry, which makes the development of the industry more directional, and the reserve of human resources will also make the development of the industry more specialized. In the current higher education system of our country, the number of students enrolled in the construction industry is very large every year, and many higher education institutions also regard the construction industry as the “signboard” of education, which also makes the construction industry rise rapidly since the beginning of this century in our country [6]. In recent years, the situation of market competition has become more and more intense, traditional engineering projects and new ones.

### **2.2. Environmental protection development of engineering design**

With the strengthening of environmental awareness in the current era, the development trend of construction industry is bound to be closely related to environmental protection. In order to make the concept of environmental protection construction deeply rooted in the hearts of the people, it is necessary to strengthen the training of personnel within the enterprise in order to make the enterprise more actively cope with the development of the times [7]. Among them, “Environmental protection construction is the concept, construction technology is the core, environmental protection building materials are the foundation, management mode is the guidance”. Under the action of these four principles, enterprises can innovate and change one by one with pertinence and logic, and ensure that the technical personnel, designers and construction personnel in the staff can realize the importance of environmental protection construction and make them be raised from the level of consciousness [8]. According to the requirements of drawing design, the manager of the project should implement the environmental protection to the details of the project construction. According to the concept of environmental protection construction, the audit department of drawings should also make norms and guidelines in the form of indicators, so that engineering drawings can be more in line with the requirements of modern environmental protection. Advocating green construction is the responsibility entrusted to the construction industry by the times, so the environmental protection development of engineering design is also one of the important trends in the future.

### **2.3. The individualized development of the enterprise's cultural atmosphere**

With the strengthening of enterprise environmental protection concept training, employees' awareness of environmental protection construction is gradually improved, and the process of personnel training in construction industry also needs time to precipitate. In the actual construction process, integrating environmental protection design into the project is not only the work responsibility of designers, but also the basic accomplishment that managers should possess. The leaders of construction enterprises should pay attention to the role of environmental protection construction on the development of enterprises, and construct a good environmental protection cultural atmosphere from within the enterprise, so as to influence the construction concept of employees from the imperceptible environmental factors [9]. The concept of environmental protection can be regarded as the cultural construction goal of the enterprise and enhance the integration function with the enterprise personality culture.

## **3. Optimization Strategy of Environmental Protection Construction in Construction Engineering Management**

### **3.1. Environmental protection construction management in energy**

Under the influence of environmental protection construction concept, managers should control and allocate the energy involved in the construction site reasonably. China's land resources are vast and the amount of energy is also very large. However, according to the survey data, the amount of recoverable energy in the current stage is very limited, and the population base of our country is large, and the total allocation of energy to per capita is still less than 1/10 of the international per capita, which also shows the current situation of energy shortage in our country. With the vigorous development of social economy, there is more and more demand for energy, and the amount of energy used in the construction industry has increased the pressure of energy supply in our country. Yes In the construction industry, the construction can use ingenious architectural design to apply the new energy to the actual building in order to offset the malpractice of the traditional energy application. Such as through the form of external plexiglass, solar light to fill the building lighting, or in the choice of building materials, priority selection of state-supported energy-saving and environmental protection materials. In the choice of construction machinery, the goal should also be "low energy consumption, low pollution". At the same time, in the process of supervising the construction, the manager should ensure the consistency between the construction and the drawing, and avoid the economic loss caused by the second rework for the enterprise, which is also the embodiment of a kind of energy saving.

### **3.2. Environmental protection construction management in resources**

Due to the scattered distribution of water system in our country, there is a shortage of water resources supply in some areas, and it is also a construction project under the concept of environmental protection construction, which needs to be saved and reused in water resources. The demand for water resources in construction construction may not meet the standard of pure water for urban residents, which also shows that the way of rainwater collection and treatment can adapt to the demand of construction work, and the recycling of water resources cannot only alleviate the tension of urban water use, but also reduce the cost of water resources for the construction side. In addition, from another point of view, due to the construction of waste water discharge issues are not clearly defined. Construction wastewater also causes the pollution of urban water resources, dust, mud and so on in the construction process, and the problem of river pollution to the city needs to be solved. In view of this, according to the demand of the construction scheme, the managers of the related projects can use the pipeline to transport the waste water to the underground drainage system, which can be transported to the sewage treatment plant for centralized treatment by the municipal drainage system, but can not be discharged into the river course of the city at will. Construction enterprises should adhere to "water saving, energy saving" as the main goal of environmental protection construction, and achieve effective implementation in all links of

construction.

### 3.3. Environmental protection construction management of pollution

There are many pollution problems caused by construction engineering, such as waste gas, waste water, dust, noise and so on, which are common building pollution problems. Pollution is the foundation of destroying the environment. At present, most cities with high level of economic development in China are affected by PM2.5, but can not effectively eradicate this pollution. In construction engineering, managers can use a variety of environmental protection construction means to control this kind of pollution reasonably, as shown in Table 1, for reference use.

Table 1 Environmental protection construction method of pollution in construction engineering management (reference)

| pollution problem     | Management measures  |
|-----------------------|--|
| exhaust emission      | The corresponding curing treatment of the gas can be carried out through the waste gas purification system.                                    |
| Waste water pollution | It can be transported to the sewage treatment plant through the underground drainage system.   |
| Dust pollution        | The construction time can be adjusted by wind direction measurement, or advanced construction technology can be used to reduce mud production. |
| noise pollution       | The impact on residents can be reduced by adjusting the construction time  |

In the process of reproduction and development, it is inevitable to destroy the natural environment, but in the construction of modern cities, integrating the concept of environmental protection into the construction project can avoid further destruction to the greatest extent. Because the construction industry is closely related to people's life, and the environmental protection concept of contemporary people always affects the development of the times, it is very necessary to integrate environmental protection consciousness into the construction industry, and it is also the mission entrusted to the industry by the times. This requires managers to develop a more environmentally friendly new construction technology on the premise of engineering quality in the process of engineering supervision and control, and to make positive contributions to the further implementation of the concept of environmental protection construction.

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