

# Study on the Strategy of Constructing Eco-industrial Park

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**Abstract.** Eco-industrial park is a new type of industrial park, designed and established according to the concept of recycling economy, industrial ecology and cleaner production. This paper puts forward two measures to strengthen energy conservation, environmental protection and ecological construction and develop circular economy. It provides theoretical basis and practical guidance for the construction of eco-industrial parks.

## 1. Introduction

Under the guidance of the scientific outlook on development, management staff on government should implement the strategy of sustainable development and seek development based on the carrying capacity of resources and environment. Management staff will achieve development through intensive and economical use of resources and preserve the ecological environment. Management staff will actively guide the use of land that is economically and intensively, and build an ecologically sound low-carbon industrial park featuring low-carbon, high-tech and ecological industries, as well as resource conservation, clean production and multi-level recycling of waste.

## 2. Energy conservation, environmental protection and ecological construction

Management staff on government should fully recognize the importance and urgency of saving resources, accelerate the construction of resource-conserving and environment-friendly parks, and put all energy conservation efforts into practice. Management staff should strengthen ecological and environmental protection, reduce environmental pollution and gradually improve environmental quality. Management staff should avoid economic development at the expense of the environment and strive to build it into an ecological demonstration park.

### 2.1 Energy conservation and emission reduction

First, management staff will focus on energy conservation in key energy-consuming industries and enterprises and strictly enforce the admittance standards for energy-consuming industries. Management staff will give high priority to energy conservation in key energy-consuming industries such as chemical and construction materials, and in enterprises that consume more than 10,000 tons coal per year, and carry out energy consuming equipment and technological transformation. Second, promote building energy conservation and strictly implement the national building energy conservation design standards. Management staff will vigorously carry out green building demonstration projects, and timely carry out energy-saving renovation of existing buildings, especially large and medium-sized ones. Thirdly, reduce pollutant discharge, set mandatory threshold for pollutant discharge, and implement mandatory elimination system for processes and products with backward heavy pollution technologies.

### 2.2 Environmental protection

With prevention as the core, management staff will strengthen prevention and control of pollution at source and protect ecological security, further improve environmental quality, and create a modern industrial base that is efficient, clean, and beautiful. First, strengthen environmental monitoring and management, strictly implement emission standards (water and gas), and strengthen the control of major pollution sources. All enterprises in the park shall handle industrial waste gas by themselves

and must reach the standard of emission. At the same time, the park unified construction of sewage treatment plant, and the waste water produced by each enterprise shall be discharged to the sewage treatment plant for treatment after being pretreated and qualified, and then discharged into the river after reaching the standard [1]. The drainage system adopts rain and sewage diversion to prevent domestic sewage and waste water entering the rain water system. In the area of serious pollution, the initial rainwater should also be treated. Strict environmental management, all the sewage pretreatment plants run normally, and the discharge of waste water by enterprises in the industrial park shall be controlled by both concentration and total amount. Secondly, to strengthen noise control, industrial enterprises should try their best to choose low-noise equipment and processes, adopt such control measures as sound insulation, and meet the requirements of Code for design of noise control of industrial enterprises (GB/T50087-2013). Strengthen the daily maintenance and update of equipment and management of operators, so that all equipment, especially noise pollution equipment, can operate under normal conditions. Limit the speed of traffic noise sensitive area. Thirdly, consolidate and improve the comprehensive utilization of solid waste, implement the measures of resource utilization of solid waste, and introduce some new building materials enterprises that use solid waste. Strengthen the safety landfill, compost incineration and adopt special treatment. For example, chemical solid waste cannot be converted and utilized in industrial park, it shall be transported to special chemical solid waste landfill according to the relevant regulations of the state. Finally, the atmospheric environment quality of the industrial park reached the requirements of Ambient air quality standards (GB3095-2012), and the air pollution index was less than 100; The noise is up to Emission standards for industrial enterprises noise at boundary(GB 12348-2008) class III area. Discharge of sewage, the industrial park has reached the second level of Integrated wastewater discharge standard (GB 8978-1996). The treatment rate of industrial waste water must reach 100% and the discharge rate must reach 100%.The total treatment of toxic and harmful solid waste must reach the level of harmless treatment, and the rate of harmless treatment of urban waste and feces must reach 100%.

### **2.3 Ecological construction**

Green land construction is an important part of ecological construction. Green plants can not only organize space, beautify the environment and improve the climate of the community. Moreover, it can effectively eliminate and reduce the pollution of environment by harmful gas, dust and noise in the process of chemical industry production, and has a good effect on improving production and living quality. Management staff will encourage the increase of green coverage on the premise that green coverage is guaranteed within the construction land. Industrial park greening can adopt various greening forms, reasonable collocation to form a good greening coverage effect. Based on the green belts of water on both sides of roads and the construction of green belts along mountains, and combined with the greening of parks inside the industrial park, an ecological green space system is formed that penetrates and integrates with the space of construction land [2].

## **3. Developing the circular economy**

Adhere to the concept of sustainable development, change the concept of development, take improving resource utilization efficiency as the core, focus on resource conservation and comprehensive utilization of clean production [3], increase government support, and accelerate the development level of industrial park circular economy.

### **3.1 Change the concept of development**

Transforming the old concept of development, this was characterized by high resource consumption and development at the expense of the environment. Adhere to the circular economic development concept of renewable resources. Achieve the transformation of economic growth mode as soon as possible, get rid of the linear economy extensive growth mode of one-way flow of resource-product-pollution emissions as soon as possible, and encourage the development of circular economy [4].

### **3.2 Develop clean production**

Management staff will comprehensively implement cleaner production, formulate special plans for cleaner production, publish an evaluation index system for cleaner production, and formulate plans for implementing cleaner production in key industries. Focusing on the reduction of major pollutants and treatment of heavy metal pollution, management staff will promote the application of clean production technologies, promote the construction of clean production demonstration projects in all fields, control the produce and discharge of pollutants at source and throughout the process, and reduce resource consumption. Management staff will promote the use of new technologies, new processes and new equipment that are highly efficient, cost reduction and environmental protection, actively promote clean production, develop eco-friendly enterprises, and build a number of environment-friendly enterprises and circular economy enterprises. Management staff will focus on clean production enterprises and use model clean production enterprises to drive other enterprises. For example, the introduction of foreign advanced technologies will transform the carbon tetrachloride that is strictly prohibited to be discharged into tetrachloroethylene and make tetrachloroethylene an important raw material for the production of chlorine-alkali, realizing clean and low-cost production [5].

### **3.3 Optimize development environment**

Management staff will focus on creating a high-quality and efficient government environment, financial environment and legal environment, and comprehensively improve our ability and level to serve the open economy. The government shall be open to the public, and the relevant departments shall conduct centralized processing of the examination and approval, reduce the examination and approval items, optimize the work process, and improve the efficiency and level of administrative services. Management staff will establish a green channel system for the approval of major projects, and improve working mechanisms. Management staff will ensure the normal production and living order of investors and create an entrepreneurial development environment with zero obstacles. Management staff will encourage foreign capital to participate in the construction of large projects in competitive industries and emerging industries, and give priority to the land use, government funds and policy support.

### **3.4 Increase government support**

The government should give full play to the guiding role of developing circular economy, establish the target responsibility system of developing circular economy, and take measures such as planning, financial investment and government procurement to promote circular economy development. Management staff will increase investment in science and technology to support research and development of common features and key technologies in circular economy. To organize the development of waste comprehensive utilization technology, recycling economy to extend the industrial chain and related industrial link technology, zero-emission technology, to recycle and utilize materials, recycle and treat technology, so as to improve the technical support capacity of recycling economy. The government should strengthen the promotion of circular economy, and guide citizens to use energy saving, water saving, material saving, environmental friendly products and renewable products.

## **4 Conclusions**

From the aspects of energy conservation, environmental protection, ecological construction, circular economy and so on, the paper puts forward some Suggestions and measures to strengthen the environmental protection, clean production and increase government support. It provides theoretical basis and practical guidance for the construction of eco-industrial parks.

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