

Environment Effects of Urban Construction and the Prevention Measures

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Summary

This paper has studied the forms of environmental pollution caused by construction in urban area and the environmental protection measures. The method of environmental impact assessment index system is discussed.

Key words: construction; environment; evaluation; indicator;

1. Introduction

Along with implementing urbanization deeply in China, infrastructure constructions have been started on a large scale. Environmental issues caused by construction in urban area have become the focus of attention. As a part of the infrastructure construction, the impacts of building bridges, crossing rivers that floating through cities, has characters of long duration, large scope of impact, and the interaction of various factors. To explore the scientific and rational organization and management of construction, and to establish the environmental assessment system become necessary.

2. The manifestations of the environmental impacts during the construction

The environmental impacts of construction have performed as the following five aspects.

2.1. The impacts on traffic around the construction sites

Long-span bridge-building needs lots of materials, such as cement, sand and gravel, steel and so on, which needed to be transported from material supply points elsewhere. As a result, traffic passage of the original space will be compressed by transport vehicles, increasing the traffic pressure and making the traffic safety a potential danger. In addition, the transport vehicles are usually very heavy, their sustainable passing could damage the original bridges, and the carrying capacity of the road surface could also be not enough under the repeated heavy loads.

2.2. Dust and air pollution

Transport, loading and unloading or mixing building materials will generate dust, which impacts local air quality directly, and it is one of the reasons of the formation of fog. Operations of Large Construction Machinery (except electric power machinery) will produce large amounts of emissions, which contain large amounts of solid particles as well as toxic gases, leading the double pollution between toxic gas and solid particles. Some building materials may also be toxic or with a strong odor of gas, such as the paint used in brushing the steel component.

2.3. Noise Pollution

Noise is one of the most important factors of impacts on the environmental during the projects construction. Relative to the daily life noise, construction noise has characters of being continuous and high strength. Measured data show that the noise generated by construction machinery is up to 120dB.