

Abstract

The paper industry in India is more than a century old. First, with the prospect of growing urbanization, increasing literacy rates and general increasing economic growth, the consumption of paper and paperboard products is expected to grow considerably in the coming years. The Indian citizen, on an average, consumes approximately 3 kg of paper each year. The worldwide production level of paper and paper board products is currently approximately 250 million tones annually, of which around 95 million tones or less than 40% is being recycled. This figure varies for the different countries.

There are, at present, about 515 units engaged in the manufacture of paper and paperboards and newsprint in India. The country is almost self-sufficient in the manufacture of most varieties of paper and paperboards . Import, however, is confined only to certain speciality papers. To meet part of its raw material needs the industry has to rely on imported wood pulp and waste paper.

The paper manufacturing process is fairly simple and is easily available in the country. The manufacturing, however, is highly capital and energy intensive and demands considerable material handling skills, as very large quantities of raw materials are used as input.

Generally in a paper mill, the pollution problem is higher than in any other industry. But waste paper industry is reducing the environmental burden by recycling the paper. However, this industry has some environmental issues that are discussed in this project. Recycling of water reduces waste pollution and it does not affect the paper quality. Most of the paper industry has adopted this trend. Solid waste problem is still there, like plastic waste and fly ash generation.

This problem is reduced by the use of the plastic waste in the road construction. By applying the plastic waste in road construction, it improves the road strength and reduces the rutting and cracking

problem. By studying this project the paper mill facing major environmental problems like water pollution, air pollution, and solid waste. Recycling of paper reduce the environmental burden. But this environmental issue still remains. Generally water pollution for paper industry is a major concern because the entire process is carried out by the recycling of water. Water recycling reduces the water consumption, electricity, and chemical consumption. This option is followed by the Shelavi Pulp and Paper Mills Pvt. Ltd. before four years.

Solid waste of industry consists of mainly plastic waste and fly ash. The main area of concentration was on the plastic waste. Plastic waste contains the adhesive tape, laminated plastic, paper fiber other impurity etc. The use of plastic waste in Bituminous Road Construction is proposed.

By applying the 3.5% Plastic waste in bitumen, the properties of bituminous mix (aggregate) is improved. It improves the stability and flow value. By adding plastic waste, the stability increase is 72%. Therefore the life of the payback will be expected to increase. The addition to 3.5% weight of plastic waste for the preparation of modified bitumen, it results in a saving of 0.5% bitumen by weight of the mixture or about 10 kg bitumen per cubic meter (m³) of BC

mixture This results in a saving of about Rs. 22068 per 1 km length of 25 mm SDBC layer.

The effective utilizations of the waste plastic bags for the preparation of modified bitumen will result in substantial increase in the scrap value.

Key Words : Solid Waste from paper mill, Pollution in paper mill.