

Manual on Hospital Waste Management

Foreword

In textile industry, pollution problems are primarily 'due to the wastewater generation by various sections like desizing, kiering, bleaching, mercerizing, dyeing etc. The effluents generated by the industry can broadly be classified as:-

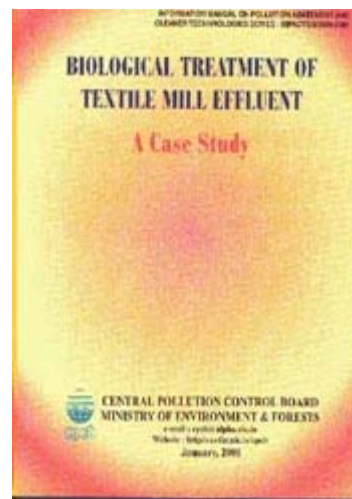
Water containing dirt, salts, oil and grease,
Water containing different types of chemicals, which are used, added and/ or removed, during the process of manufacturings and,
Water containing fibrous materials.

Presence of chemicals in the wastewater makes it strongly coloured, alkaline and difficult to treat. Modification of the existing equipment, reduction in the process chemicals, reuse of process chemicals, process modification, waste segregation, and reduction of wastewater volume are some of the 'in-plant measures' for pollution control. For treatment of waste water, use of biological methods could be a cost-effective option as compared to conventional treatment systems.

By developing the acclimatized micro flora to treat the alkaline textile wastewater, a laboratory scale investigation has been undertaken by the Central Pollution Control Board to find out the applicability of such biological variables in the laboratory environment with emphasis on the following: -

Acclimatization of microorganisms to survive, grow and metabolise in the alkaline environment; Primary treatment of effluent by commercially available coagulants and their use in combination instead of acid treatment; and, Use of the acclimatized microbes for treatment of the wastewater.

The present report contains the findings of the laboratory investigations to explore the possibilities of using acclimatized microorganisms for treatment of alkaline effluent, We hope, the information contained in this report will 'be useful for effective treatment of textile effluent



A handwritten signature in black ink, appearing to read 'Dilip Biswas'.

Dilip Biswas
Chairman, CPCB