

Sustainable Management of Wastewater from Distilleries

Nagabhushan B Biliangadi¹ and Anil Kumar Dikshit^{1,2,3}

¹Centre for Environmental Science and Engineering, Indian Institute of Technology Bombay, Mumbai- 400076, India

²Honorary Professor, School of Civil Engineering, Survey and Construction, University of KwaZulu-Natal, Durban-4041, South Africa

³Visiting Professor, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore-639798

Corresponding Author: dikshit@iitb.ac.in

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Abstract

Effective strategies for treatment and management of industrial wastewater are essential to meet the stringent effluent standards set by regulating authorities and to potentially reclaim and reuse this wastewater. Distilleries generate a vast quantity of wastewater (8 to 15 litre of wastewater per litre of alcohol produced) and more than 300 distilleries in India generate billions of litres of high-strength wastewater.

Distilleries need a large quantity of water to meet their production demand. It is necessary for the distilleries to treat, manage and reuse wastewater effectively so that their water demand decreases. Conventional physico-chemical and biological methods fall short of treating wastewater from distilleries, either due to economic feasibility concerns or technical limitations. Modern technologies, such as membrane technology, are not only efficient but also have a smaller environmental footprint. In this paper, an effort has been made to review the options that are available to distilleries to meet both their zero discharge requirement and sustainable development goals.

Keywords: *Distillery Wastewater, Reuse, Sustainable Management, Treatment Methods, Zero Discharge.*