

A Review of Wastewater Minimization Approaches in Industry

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Abstract

This paper reviewed the state of the art technologies in industrial wastewater minimization. We first introduce water use in industry, the effects of water shortage on industrial development, as well as the effects of wastewater on ecosystems. Then we discuss the conventional wastewater minimization approaches. The main focus of this paper is to discuss the advanced wastewater minimization approach, especially water-pinch technology, including its basic concept, evolution, theories, implementations, management and limits. The central claim made in this review is that an integrated wastewater minimization system can efficiently produce the globally optimal solution.