



Comparison of a conventional municipal plant, and an MBR plant with and without MPE

A comparison of the environmental and financial performance of a conventional activated sludge (CAS) plant, membrane bio-reactor (MBR), and MBR treated with Nalco Membrane Performance Enhancer (MPE technology, in the treatment of municipal wastewater

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ABSTRACT

Wastewater treatment using submerged membranes has become an industry standard treatment technology over the last 15 years. Initially, membrane bio-reactor (MBR) plants were often built in regions with the highest effluent quality requirements or in areas of water scarcity. MBR systems have increasingly gained acceptance as one of the best wastewater treatment technologies available. Globally, MBR technology is the fastest growing wastewater treatment technology available, with an annual growth rate (depending upon the country) of between 10 and 20%.

Keywords: MBR; Fouling; Flux; Peak flow; Permeability; EPS; Reduction of fouling; Operation costs; Investment costs; Wastewater treatment; Membrane; Zero liquid discharge; Water reuse
