MicroClear®

CASE STUDY

SEWAGE TREATMENT WITH THE MICROCLEAR® MBR SYSTEM ON A CRUISE LINER

Project Background

Located in Strasbourg, France, the Krüger WABAG GmbH built a sewage treatment plant for a cruise liner with a capacity of 200m³/d. The plant is built in two separate lines, starting operation in April 2009.
The complete amount of water is dumped to the river Rhein. The quality exceeds the values of the European guideline for bathing water 2006/7/ of 15.2.2006 for excellent quality.

Project Description

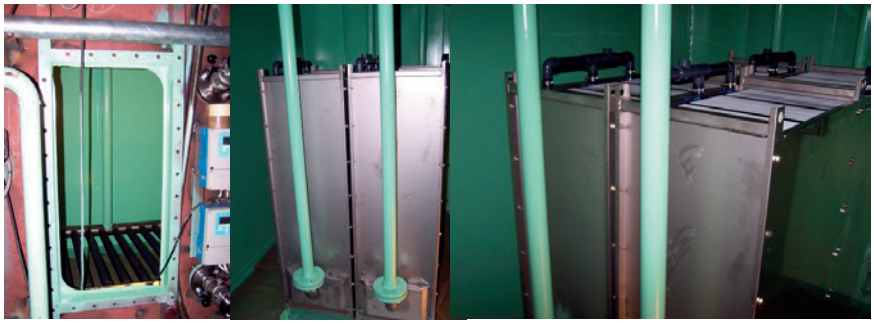
The contracted project is based on MicroClear MBR technology by Weise Water Systems. The most unique feature of the installation is how the tanks in which the treatment plant is to be located have been completely integrated into the boat hull.
The treated water will be dumped into the river. Because of the sensitive eco system of the river it is necessary to fulfill a high effluent quality that can only be reached by the MicroClear® - MBR system.

Performance characteristics

Flow: 8,33 m³/h
Average flux: 24,8 l/m²h
Membrane surface area: 336 m³m²

Technical Data

	Waste water	MBR effluent
BOD [mg/l]	200 - 400	< 5
COD [mg/l]	400 - 600	20 - 40
CFU per ml		< 1.000
E-coli		Not detectable
Coliforme		Not detectable
Turbidity		< 1



Pictures showing Sewage treatment system with aeration tank and Membrane-bio-reactor tank with the MicroClear® Filter housing installation

newterra GmbH, a subsidiary of newterra Group Ltd, is the technical center of development and excellence of the globally successful MicroClear® flat sheet membrane for MBR (membrane bioreactor) applications. The evolution of the filtration module, by specially developed and optimized production machines, to the ISO 9001 certified manufacturing process of the MicroClear® membranes, is 100% produced at the site in Langgoens, Germany (near Frankfurt).

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