



Best practice example in India: Since 2013, the manufacturer 'Home Colors' has been producing textiles for ALDI without any wastewater discharge

Environmental protection and industrial textiles production often appear to be irreconcilable with one another. However, 'Home Colors' and other producers have proven that this is not actually the case. Since the year 2013, the company has been producing cotton-based items in India with zero discharge of wastewater. By means of modern wastewater treatment facilities designed according to the so-called Zero Liquid Discharge (ZLD) principle, wastewater generated from textiles finishing processes is purified within a closed cycle and prepared for reuse. As a result, regular production operations do not cause liquid wastewater to be released into the environment.

The project was given the green light in 2011 due to the strict national and regional environmental regulations. Subsequently, the construction of a ZLD treatment facility for liquid-based textiles finishing processes was already completed a year later. The ZLD facility enables the textiles production facility to purify its own wastewater and almost completely regain this water for reuse. Only a minor share of the water remains within the treatment facility in the form of sludge, which is then evaporated using solar energy. Following comprehensive testing, the ZLD facility was put into operation in 2013 and has been producing clean water for further use by the company on a daily basis ever since.

Function of the ZLD facility

The ZLD treatment facility applies a conventional pre-treatment phase as well as a fine purification phase based on the principle of reverse osmosis. This system enables the purification of water for reuse within operations. When the sludge is fully dried out, the substances which were previously contained in the wastewater in fluid form become solid and/or crystallised.

Additional benefit: The dried out sludge can also be purposefully used, e.g. in the production of cement, or, for example, as a fuel source for waste incineration. Consequently, the wastewater treatment process described ensures that potential environmental damage caused by operations is reduced to an absolute minimum.

In the meantime, the Indian state of Tamil Nadu has now made ZLD wastewater treatment compulsory across all industries within its region.

(see also <http://www.downtoearth.org.in/coverage/towards-zero-discharge-33489>).

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