

UPGRADING OF REVERSE OSMOSIS PLANT AT SYSAV PLANT FOR TREATMENT OF OIL POLLUTED WATER IN MALMÖ

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ABSTRACT

Pall GmbH has developed the DT-module for treatment of leachate from landfills with reverse osmosis (RO). The module shows good treatment efficiency that in many cases is 99% or more and high recovery rate up to 85% and high accessibility.

The paper presents a plant that is configured by spiral membrane that has been replaced with DT-modules. The SYSAV plant in Malmö that receives oil polluted water exceeded the environmental limits of 500 mg/l for COD at several times a year. There has also been a lack of capacity and just change of spiral membrane should not have been enough.

Two test were made with the DT-module was the first which is a one step process where the oily water is pumped through the membrane once and got very fine values on the permeate. At the second test the where put an extra step in order to make it possible to run the retentate a second time. In this case the recovery rate increased to over 90% and also this time under environmental limits for the discharge. SYSAV is now leasing the equipment in order to find out how the plant works over time. Data and experiences will be presented in the paper.

The presentation will include configuration, treatment rate, accessibility, washing, atomization rate, chemical dozing, energy consumption, further development etc.