

CUSTOMER CASE



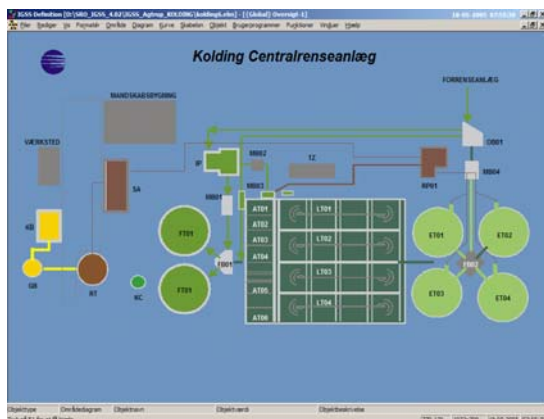
Kolding Central Wastewater Treatment Plant

Wastewater Treatment

Denmark

Plant Description

The Kolding Central Wastewater Treatment Plant has been used since 1992. The plant is built with both biological and chemical waste water treatment after the bio denipho method. This means that water is cleansed for phosphorus through biological principles, which entails a reduced use of chemicals.



Removal of organic substance and nitrate occurs solely by biological principles. In 1999 the treatment plant was expanded with a biological sludge plant. Excess sludge from the wastewater treatment plant is treated here.

Facts

Between 8 and 11 million cubic meters of wastewater is cleansed annually, depending on the amount of rainfall. 75,000 and 10,000 cubic meters, respectively, is cleansed at the treatment plants in Viuf and Sdr. Vilstrup. Sludge corresponding to approximately 2,000 tons of dry material is treated at the sludge-mineralization plant.



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The pre-treatment plant takes care of the rough

Wastewater from Kolding City and the surrounding area ends up at the old central wastewater plant initially. The old central wastewater plant functions as a pre-treatment plant today as well as the smaller treatment plant in Sdr. Bjert. Both plants underwent complete modernization in 1999 and 2002, respectively, turning them into units with the latest technology. Sand and grease is removed from the wastewater before it leaves the pre-treatment plants for further treatment at the Agrtrup plant

Biogas plant

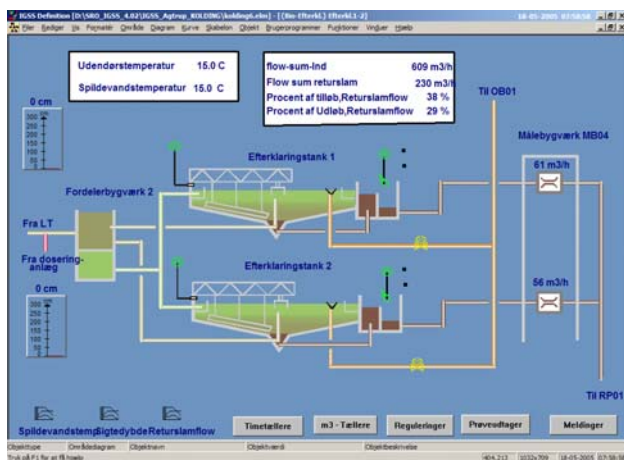
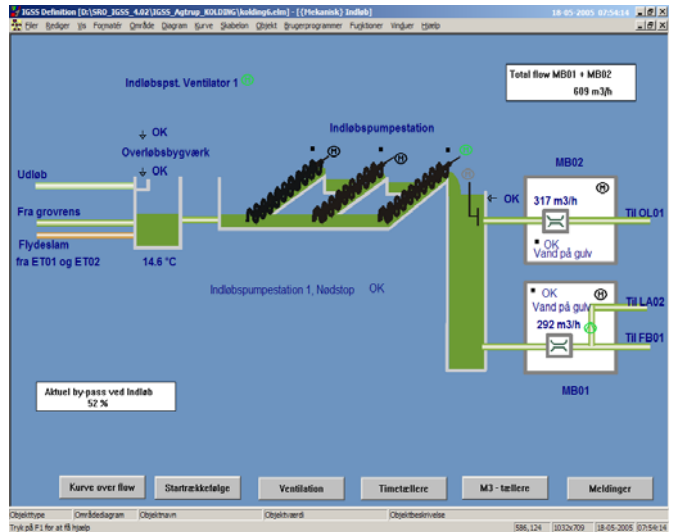
The heaviest particles settle in the purification tanks and are moved to the decomposition tank. This is referred to as primary sludge,. When the primary sludge decomposes, biogas is produced. The biogas is used to power a gas engine and exploited for power generation. The produced power accounts for approximately 20 pct. of the entire wastewater plant’s power consumption.

Outlet facility

From here, the cleansed water is led back through the Little Belt pipeline. It takes about 48 hours for the wastewater to go from the treatment plant to the Little Belt. The Little Belt pipeline is a long pipeline on the south side of Kolding Fjord all the way to the Little Belt where the wastewater is let out 30 meters below the water surface, 150 meters into the belt.

Managing, regulation, and monitoring

All the main procedures at the wastewater treatment plant are managed, monitored, and regulated via a SCADA system. This gives the best possible performance and increases the security of the process. If errors occur in the process, an automatic alarm is sent via cell phone to a person on duty. The facility is surveyed 24 hours a day through a home watchman arrangement.



IGSS

The wastewater treatment facility’s IGSS is a 5,000 object multi-user system with three operator stations. The IGSS at the pre-treatment plant is a 5,000 object single-user system with one operator station. In addition, a 600 object single-user system with one operator station at the treatment plant at Sdr. Bjert.

Owner: Municipality of Kolding

System Integrator: Krüger A/S and Picca Automation A/S