Tallinn Zoo
cleared the water

Better view for Aron, Friida and the visitors

ozonetech.

TALLINN ZOO

Tallinn Zoo was founded on 25 August 1939. The first exhibited animal was a cute lynx cub. It was named Illu and later became the zoo's emblem animal.

Tallinn Zoo holds one of the best collections of mountain goats and sheep in the world. The zoo also holds a great number of eagles and vultures and a fine collection of owl and crane species.

Today, the Tallinn Zoo exhibits one of the most fascinating zoo collections in Northern Europe and has been successful in the reproduction of their nurselings

The ozone system was integrated into the new facilities from the start.

THE PROBLEM

Tallinn Zoo has undergone substantial renovation. The zoo was in dire need of upgrading the facilities to make sure best possible conditions for the animals and to attract more visitors. One of the main attractions, the polar bears, were in particular need of a robust water treatment system. The reason is the heavy load of proteins and other organic material which accumulate in their water. If the proteins continuously could be removed it would not only lead to better conditions for the polar bears. It would also give the visitors a better view through the underwater display glass the zoo installed as a part of the renovation.

THE SOLUTION

In order to clarify the water from particulate protein residues, skimmers were installed in the water treatment system. In addition, the zoo selected Ozonetech to design a solution which enhances the protein removal process by particle coalescence. Protein particles can then be removed mechanically with ease.

Ozonetech delivered and commissioned the RENA Pro C6 system. By request of the Tallinn Zoo engineering team, we tailored the systems controls to ensure stable dissolved ozone concentrations even at highly variable treatment flow rates. The solution comprises a cascaded flow-oxidation potential controls with a Human-Machine- Interface with touch panel, integrated into the advanced control system. The high concentration ozone gas is continuously injected into the skimmer gas-liquid injectors. Control signals from downstream flow-meters and ORP sensors are continuously measuring the load and performance of the treatment system. The delivery from Ozonetech also included ambient ozone detectors and a network of sound and light alarm stations in case of any skimmer ozone leaks.

EVALUATION

Tallinn Zoo has since its grand opening in September 2017 successfully treated the polar bear swimming and drinking water with the unique engineering and controls custom-made for the facility. Friida and Aron, the majestic polar bears, can now rely on clean water. The RENA Pro system has been stable providing very precise dissolved ozone concentrations.

> *Ozonetech was the only party involved that could deliver the customized controls", says design consultant Klaus Spitzer.*

The RENA Pro C6 system with integrated cooling system installed at Tallinn Zoo.

ABOUT OZONETECH

Ozonetech is an award-winning cleantech company that has offered premium products for air and water treatment since 1993.

Our unique technology and extensive expertise has made us a rapidly growing global company with installations on six continents. All development and manufacturing is located in Sweden. In addition, we have in-house specialists for consultation, planning, installation and service.

As a Center of Excellence within air and water treatment, we also collaborate in international efforts to develop global standards for purification solutions.

At Ozonetech, we have a strong incentive to reduce energy consumption, health risks and the impact on the environment. Our current solutions provide a multitude of benefits in the processing and food industry, real estate, commercial kitchens as well as in the retail market.

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