

## New Ozone Plant for Yang Shu Pu, China

By Nathalie Kanaf -- Nov 17, 2008

Dubendorf, Switzerland --In October, Degrémont Technologies-Ozonias has handed-over the ozone-plant for the drinking water facility of Yang Shu Pu and has successfully passed the performance tests. The plant consists of 3 generators with a capacity of 31.25 kg O<sub>3</sub>/hr @10% wt each.



Furthermore Degrémont Technologies-Ozonias has delivered two thermal VOD, the diffusing systems for pre- and post-ozonation, the closed cooling water circuit and all necessary instruments and valves. The drinking water plant is located in Shanghai and has a capacity of 375'000m<sup>3</sup> / day.

Off gases from a process containing trace levels of unreacted ozone must be passed through a thermal or catalytic type vent ozone destruct for environmentally safe discharge.

## Ozone destruct technology



Exhaust gases from processes where ozone has been used invariably contain residual amounts of un-reacted ozone. Before this exhaust can be vented to atmosphere it is necessary to decompose the traces of ozone. In most countries it is forbidden to exhaust even low concentrations to atmosphere. There are various methods available to treat vent gas.

Two popular methods are thermal and catalytic destruction which are selected to match the process in question. The thermal destruct units raise the temperature of the off-gas to a level where the halflife of the ozone is reduced to milliseconds and in the catalytic units the ozone molecule decay rate is accelerated on the surface of the catalyst converting the ozone to oxygen.

## How it works

The vent gases leaving the process are routed to the RO vent ozone destruct unit. In the reaction chamber the gases are heated-up to around 752°F which radically reduces the half-life of the ozone molecule and, consequently, accelerates the decomposition rate so that the ozone content in the gas stream leaving the VOD is well below the recognised

safety limits (less than 0.1 ppm). In order to reduce the electrical requirement for heating the system incorporates a heat recuperation feature.

#### About Ozonia

Ozonia is one of the world's largest leading suppliers of UV and ozone disinfection systems. Ozonia has a long history and extensive experience in both technologies, and supplies ozone and UV equipment to the municipal and industrial sectors. As disinfection of water and wastewater is a global need, Ozonia has representatives in many countries worldwide, each of which use the same core technologies to provide global customers the proper support services.

Web site: <http://www.degremont-technologies.com/>