Application: Disinfection of municipal drinking water.

Location of the installation: Ünye city, Ordu province, Turkey

City population: ~130 000 people.

Drinking water consumption: 1150 м3/H

Type of Envirolyte equipment: ELA -1000HD generator designed to produce 1000 LPH of HOCL (anolyte) at 2000 ppm

Previously use technology: Chlorine dioxide

The reasons for switching to new technology: HOCL disinfection method was made conditional in a project design. The reason is that it is considered the most advanced contemporary technology for municipal water disinfection.

On the top, safety considerations such as:

- Toxic chemical exposure with CLO2
- Chemical burns with CLO2

- Corrosive spills of CLO2
- Chlorine gas release (severe inhalation hazard)
- Fire and explosion risks under improper conditions

Envirolyte ELA-10000HD set for 1000 LPH at 2000 ppm

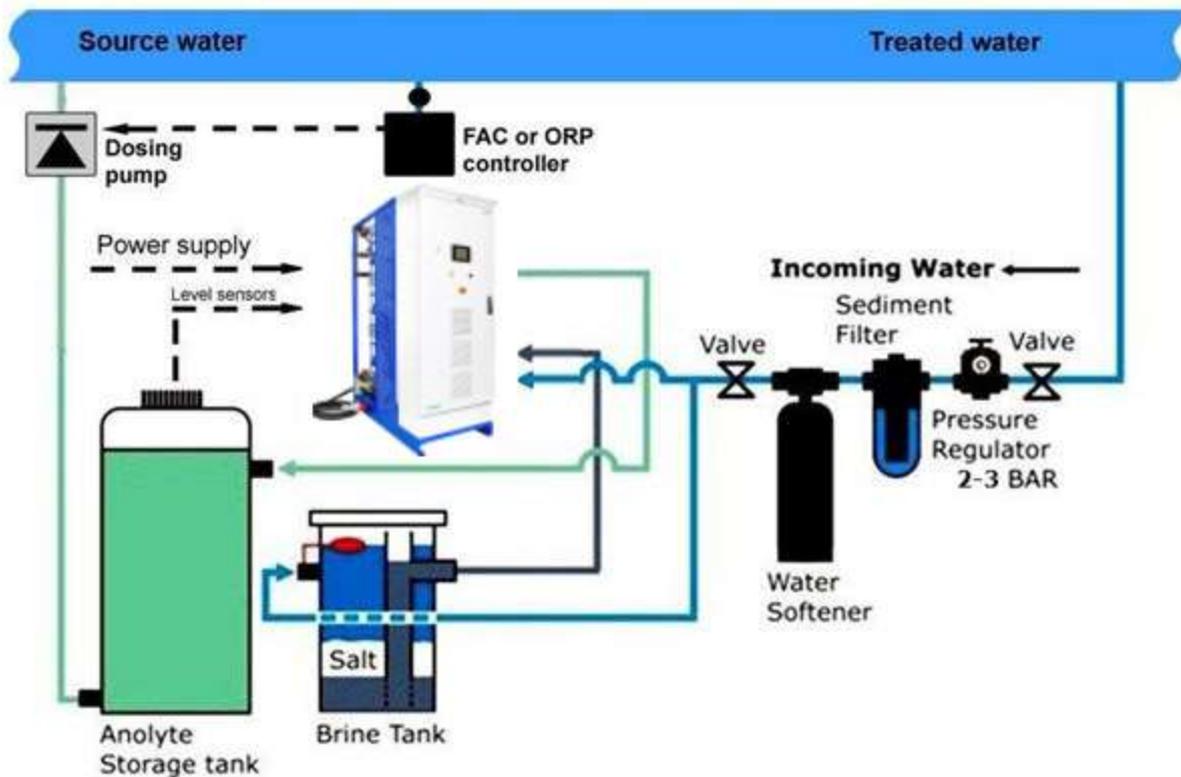**Brine   tank**

Envirolyte ELA-10000HD set for 1000 LPH at 2000 ppm

Filter and water softener

Dosing control set for 0,5 ppm HOCL residual

Below can be seen a schematic of the systems layout

Source water | Treated water

Dosing pump — FAC or ORP controller

Power supply
Level sensors

Incoming Water ←
Sediment Filter
Valve | Valve
Pressure Regulator 2-3 BAR

Salt

Anolyte Storage tank | Brine Tank | Water Softener

The reported benefits of using Envirolyte water disinfecting technology:

Safety
-no dangers and setbacks associated with chlorination and/or hazards associated with transportation of the toxic substance
- no need to mix or dilute hazardous chemicals
-environmental friendly solution

Efficiency
- elimination of biofilms and inactivation of pathogenic microorganisms including Legionella species, and nil bacteria counts
- creates a longer-lasting residual than traditional chlorination, often at a lower dosage
-right dosage, no more no less – corrosion is reduced
-significant reduction of Trihalomethane and other DBP

Cost reducing
-Envirolyte system is fully automatic and only requires a minimal operator attention
-no need for transport, handling or storage of chlorine gas or hypochlorite
-on site installation in close proximity of urban population