



Želivka Water Works

Water Purification and Distribution

Czech Republic

Plant Description

Želivka Water Works supplies 60% of the potable water for the Czech capital of Prague in addition to supplying surrounding regions. It has a maximum capacity for producing 7,700 liters per second.

The actual transport of the potable water from the water works to the city is accomplished through a rather unique 52 kilometre long tunnel with a diameter of 2.2 meters. Water transport is monitored at 18 points throughout the length of the tunnel, all of which are connected through a radio data network.

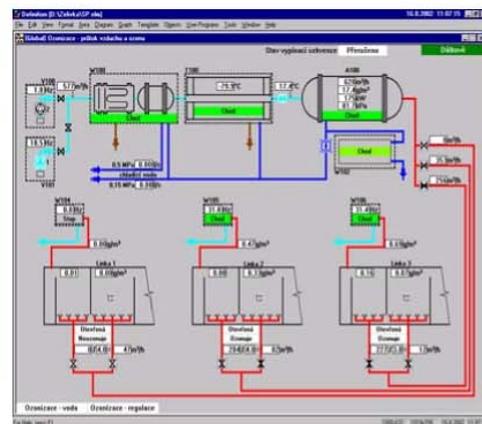
Process Control Characteristics

The control system for the water works is designed as a distributed system. It consists of 46 PLCs and various other I/O modules bound together in a process control network with more than 6,000 direct I/O points as well as other computed values necessary for proper functioning.

The system controls 11 pumps of 1.5 MW each, chemical dosage of the water, ozone generation and dosage, control of filters, etc. as well as providing information and control of a 22 kV and a 6kV net of electricity supply.



Pumping stations at the water works



IGSS mimic of the ozone generation process

CUSTOMER CASE

Owner

The owner of the water works is the Czech company PVS a.s., which is a stock company jointly owned by the municipality of Prague and other surrounding municipalities. Water works operations are handled by PVK a.s., which is a member company of the Vivendi group.

IGSS Application

The entire IGSS installation consists of 2 multi-user systems and 2 single user systems with a total of 16 operator stations and approximately 22,000 objects. Operators are divided into 10 different groups, each with specific rights as set up in the IGSS User Administration module.

The main IGSS configuration consists of among other things 9,378 PLC addresses, 131 diagrams, 57 pre-defined graphs and X-window components.

System Integrator

Unicontrols a.s.