

DCS Control System for cooling tower of FUSINA Power Plant



General view of the Thermo Power Plant

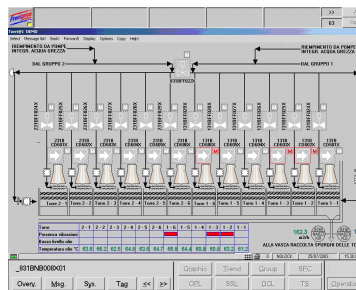
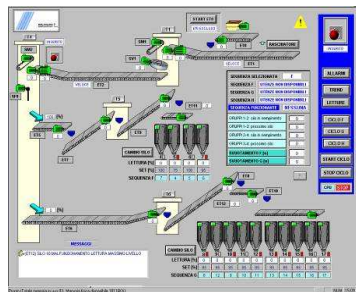


Circulation pumps for water



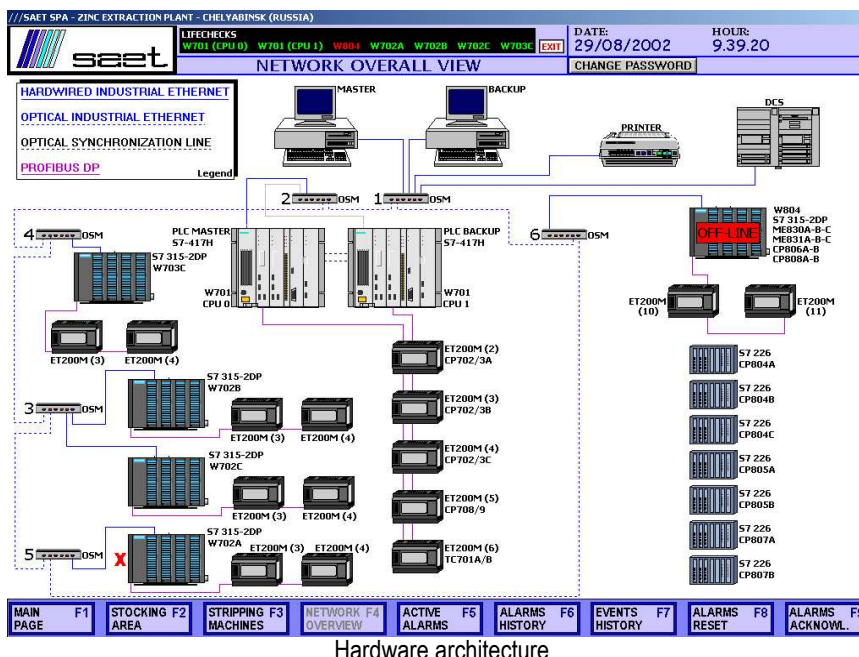
Evaporations towers

The ENEL thermopower plant in Fusina (VE) has 5 groups for the generation of electricity each consisting of a boiler, a steam turbine and a generator; in this plant SAET supplied the automation control towers system (CTS) that allows the reduction of temperature for the cooling water turbine groups: the water flow and its cooling is guaranteed by the main circulation pumps of medium voltage (3-6KV), by auxiliary pumps of low voltage (400V), by valve ON / OFF hydraulic and electrical control (protocol Profibus DP), by electrical adjustable valves (protocol Profibus-PA) and by level temperature sensors (also with protocol Profibus-PA). The automation basic system consists of manual handling with logic interlock with PLC and of the interface and remote systems via OPC to third parties. The operations of the automatic cycle consists



SCADA Video pages

in the verification of the conditions of start-up, then of the tank level or verification of proper placement of valves, of working of circulation pumps for industrial water, of continuous and automatic adjustment of tank water levels (refrigerant liquid) and of continuous recording of the operation trend of all signals acquired in the SCADA stations, in one of which can be parameterized by remote the supplied equipment with protocol Profibus-DP/PA and can be changed the logic used by the DCS (digital computer used for real-time control of a dynamic system), supplied in redundant configuration master / slave. Since these two stations the status of the plant and of the electronic equipment can be supervised and checked and all automatic sequences can be managed, as well as alarms, events and trends.



View of the ENEL Fusina thermo power