OVIVO UPGRADES PLC SYSTEM WITHOUT INTERRUPTING DE-IONISED WATER PRODUCTION

HOW WE CREATED VALUE

Ovivo agreed that the change could be carried out within a series of 5 hour windows.

Included in the scope was the installation of a fibre optic system and the Ethernet ring, removal of the PLCs and SLC500 PLC completely.

THE CHALLENGE

Operation of Water Treatment Plants (WTP) is often achieved by Programmable Logic Controllers (PLC) using a Human Machine Interface (HMI) to interact with the PLC. Like computers and other electronic devices, PLC technology advances rapidly leaving them no longer supportable by the manufacture or the modern laptop/PC within only a few years.

Often the plant’s existing PLC or HMI system is no longer compatible with the current platform, making it difficult, if not impossible for end-users to update their existing PLC or HMI program when they update the plant or undertake equipment upgrades and replacements. The replacement of the PLC and HMI is a high risk operation with the potential of loss of production and the need to re-commission the system.

OVIVO’S SOLUTION

Ovivo offers a full package solution that takes into consideration the process, the software and the hardware of the plant. Ovivo’s knowledge of process control of water treatment plants combined with our house software team ensures that the PLC/HMI replacement is carried out in an efficient manner with minimum down time. During this process, Ovivo will undertake a review of the:

- Existing system and recommend updates and improvements,
- Existing PLC/HMI and recommend to most appropriate upgrade,
- Existing instrumentation recommending modern replacement where necessary.

Ovivo will prepare or modify sequence charts, logic diagrams and system architecture diagrams, ensuring that the customer’s control requirements are incorporated. The PLC and HMI code will be re-written to ensure that any changes to the operating regime and specifications are included. The system will be fully tested before being sent to site.

In addition, Ovivo will plan and undertake the installation of the new PLC and HMI system, planning the work for minimum down time and ensuring maximum production.