Troubleshooting at an effluent treatment facility

ABB achieves a plant’s previously elusive design consents in just 25 days.

A relatively new effluent treatment system for a terephthalic acid production plant used sequential anaerobic-aerobic bio-treatment. After three years’ effort by site personnel, bio-treatment performance failed to fulfil either the design criteria or the quality requirements for treated effluent.

ABB was asked to provide expert consultancy support for the site effluent treatment system to establish whether the effluent treatment system design was capable of achieving the required performance.

We were also asked to provide expert guidance on corrective actions to improve the performance of the plant, and to oversee recommissioning and provide technical and operational training.

Solution
The major output of ABB’s initial report was a structured re-commissioning programme so the effluent treatment plant could achieve design performance. To this, we supplied additional expert technical support.

Programme
The programme maximised operational assets’ performance, while technical and managerial changes were made to improve it across the whole plant. This approach brought about a rapid improvement in performance and a subsequent steady increase in pollutant removal. We held extensive training sessions for technical, managerial and operational staff to facilitate continued improvement after our departure from the site.
Benefits
- Plant performing to its design within 25 days
- Rapid improvement in performance
- Improved operational control
- Strategic effluent treatment plant improved
- Continued improvement through extensive training of technical, managerial and operational staff