

Flow Balancing and pH Neutralisation Bush Boake Allen

As a leading producer of fragrance components for the soap and cleansing product markets, Bush Boake Allen (BBA) make a wide range of speciality chemicals at their site in Widnes. The effluents generated are disposed of in various ways dependant upon their content and concentration, with a reasonable portion of the effluent being discharged directly to the public sewer for treatment at the local sewage works.

In early 1997, BBA were informed that the consent conditions to discharge their effluent were to be tightened. In response, BBA commissioned Entec to investigate the effluent production across the site, and advise them of any capital projects that were required to ensure that the new consent conditions could be achieved.

This study highlighted the need for flow and composition balancing, along with pH neutralisation, of the site's medium strength effluent prior to discharge in order to ensure consistent compliance with the revised consent.

Entec considered the options available and demonstrated the best treatment system configuration through the production of dynamic computer models using the ESP simulation package.

The conceptual design of the system was developed, and a preliminary cost estimate made, to give BBA the information needed to get capital approval from their parent company in the USA. Entec then undertook the detailed engineering design of the project, and supported BBA in the procurement and construction of the final treatment facility.

The project was completed and successfully commissioned towards the end of 1998, allowing BBA to consistently meet their revised effluent discharge consent within the time scale required.

Facts and Figures

Project

Effluent Treatment - pH Neutralisation Plant

Client

Confidential

Location

Widnes, UK

Capital Project Value

£1.2m

Entec Services

- Optioneering study, including modelling using ESP Software
- Front end conceptual design
- Preliminary cost estimate
- Detailed process, electrical, ICA, civil and structural engineering design
- Interfacing with existing site wide DCS
- Preparation of procurement specifications

*Ensuring continued compliance with
tightened discharge consent conditions*

