

Howdon STW Secondary Treatment Northumbrian Water

Howdon STW is based near the mouth of the River Tyne and the addition of the secondary works are part of a £300 million investment in coastal effluent treatment infrastructure made by Northumbrian Water which will achieve compliance of tough European directives.

Management of some twenty contracts on this multi-disciplinary project with a combined value in excess of £45 million necessitated a planned and co-ordinated approach. Include partnering arrangements and contract award phase value engineering with all contractors, along with major additions to the scope of works and the realisation dawned that the skills required are much more demanding than those required for traditional site supervision. On completion of the design phase Entec was appointed to carry out this role, as work was about to commence on site.

Wide ranges of skills were required to manage various aspects including civil, mechanical, electrical, ICA, process, environmental and cost control. The team was assembled under a construction manager whose roles included project manager (ECC contracts) and engineers representative (form G90 contracts). Team leaders were appointed to manage various disciplines and they allocated team members to specific focus areas on site. Several of the team had specialist skills for which they retained responsibility on a site wide basis.

This integrated management structure ensured that a focused approach was adopted with a single point of overall responsibility for delivery of the project rather than the alternative fragmented approach where each discipline would have retained responsibility for their own scope of work only.

Special relationships were built up between Entec, the client and contractors through partnering arrangements. Charters were agreed which gave due recognition to all parties, fostered mutual respect in a trusting and open relationship, encouraged innovation to provide quality and value, to achieve or better targets and to maintain an impeccable safety record.



A co-ordinated construction management approach to a complex multi-disciplinary project

Value Engineering at this stage of the project had the potential to delay completion if it had not properly managed. Initial workshops were convened where proposals and estimated cost savings were identified. Core teams were formed comprising Entec, the Client and contractors who developed the proposals, assessed the effects on programme and finalised costs. Entec's inputs during this period were considerable involving amended design and programme co-ordination with various contractors effected by value engineering changes.

The obvious question to be posed is "how do you measure your success?" Throughout the life of the project, key performance indicators were maintained and any weaknesses could be identified and eliminated. The final proof was commissioning of this complex project in compliance with European Community legislation by the due date of by 31 December 2000. Cleaner river and coastal waters will contribute to an improved environment which will benefit Tyneside for foreseeable future.

Facts and Figures

Project

Howdon STW Secondary Treatment

Client

Northumbrian Water

Location

Howdon, North Tyneside, UK

Capital Project Value

£????

Entec Services

- Construction management
- Programme co-ordination
- Contractor/client operations interface co-ordination
- Cost management
- Commissioning management
- Operations and maintenance manual production
- Process plant optimisation
- Operations support
- Planning supervisor
- Principal contractor
- HV/LV safety management site wide
- Client project manager support

