

Case study Petrochemicals company

Overview

A major energy corporation maintains UK subsidiaries that manufacture fuels and petrochemicals. Water cooling towers are used to transfer the heat from production and are integral for continuous operations. The operator wanted to extend the cooling tower service life and boost operating efficiency for five or more years before committing to decommissioning and installing new water cooling towers.

Our approach

We created a rolling change management programme designed to refurbish and substantially improve cooling tower efficiency and operational control to modern benchmarked performance levels.

Schematic and photographic audit documents and risk assessments were used to justify and prioritise change programmes and improvement works. We;

- Replaced the hanging fill-packing with block-fill packing
- Modern L8 compliant plastic air inlet louvres replaced obsolete wooden louvres
- Eliminators were modernised and re-specified
- The distribution system was redesigned and re-installed
- Fans and motors were upgraded / rebuilt with improvements
- New fit-for-purpose Control panel
- Externals were enhanced (new timber cladding, walkways, access doors and changes to pipework and valve configuration)



CLEANING
MAJOR PLUMBING
SPECIALIST WATER TREATMENT
PRE-TREATMENT
WATER PURIFICATION (INC RO)
SPECIAL PROJECTS
REMEDIATION (PRECISION) WORKS

Outcome

All refurbishment work was completed on time and on budget. A return visit by HSE found all work to be fully compliant.

The site manager saw a 10% increase in cooling efficiency compared with previous works data. Across the summer, production at the normal rate became possible because of additional cooling.

Full replacement of assets has been delayed in line with the customer's wishes.