



Stefan Smith, BP's Clean Fuels deputy project manager, commented:

“The safety performance of everyone involved in the Gasoline Clean Fuels Project at Coryton Refinery has been exceptional. Expending over 700,000 work hours with a workforce that peaked at over 500 people without a lost time accident is a remarkable achievement.”



The SHU plant.

Foster Wheeler is delighted to report the successful start-up and commissioning of the fast-track Clean Fuels Project for BP Oil UK Ltd, at the Coryton Refinery in Essex, UK.

Driving the project was the need to remove the sulphur from the fluid catalytic cracker (FCC) light gasoline to allow the refinery to blend the higher specification 'sulphur free' fuels.



Unit 36 fractionator heavy lift almost complete.

Safe, successful & fast BP Clean Fuels

Appointed as the project management and engineering, procurement and construction management contractor, we delivered the project in August 2003. The project was completed six months ahead of BP's independent project analysis consultants' benchmark.

Foundations for success

The work accomplished during the 'deep front-end' phase, also carried out by Foster Wheeler, laid the foundations for this success. The main long-lead equipment items were ordered and site enabling work and piling started straight after the FEED was completed.

A new selective hydrogenation unit (SHU) was built and the selective hydrodesulphurisation unit (SHDS) was revamped from an existing gasoline treatment unit. The project also involved inter-plant connections, utilities and services plus offsite tankage and pipework modifications. In total, over 12,000 metres of pipework were modelled in 3D PDS.

One of the complex issues successfully overcome by the team was the transfer of control and instrumentation of the revamped plant to a new SHU/SHDS modular control room delivered complete to the site.

Critical transportation

Construction activities included the management of a number of heavy lifts, one of the most critical being the SHU fractionator column. At 46 metres in length and 2.5 metres in diameter, it was delivered on a barge to the BP Oil site construction jetty at Coryton from the fabrication works in Germany via the Rhine and the English Channel.

This transportation exercise was scheduled to address the restricted tidal windows that limited access to the site jetty. Once on site, the column was transported to the construction area and fully dressed. Finally, the 115-

tonne column was lifted into position using a 1,500 tonne crane and lowered into place without any problems.

Safety

As with all work in and adjacent to live plants, safety was of the highest priority and this project delivered an exceptional safety performance. In recognition of this achievement donations were made to benefit three charities nominated by the project team workforce. The total amount to be donated as a direct result of the safety performance on the project is an impressive £24,420.