

Changing from manual to automated tank cleaning saved time and money

At ESSO's Fawley Refinery in the UK, the cat slurry tanks were in need of cleaning. Two main objectives were outlined for the project: **Minimum downtime and minimum waste generation. The BLABO automated system proved its strength on both accounts.**

Over time, the Fawley Refinery cat-fines sludge tanks had built up catalytic fines strata and consolidated sediments at the bottom. A thorough cleaning was called for, but two major criteria must be met: Minimum downtime and minimum waste – both crucial cost factors. STS, using the BLABO automated tank cleaning system, delivered.

From manual to automated cleaning

Before the BLABO system entered the scene, the Fawley Refinery had already cleaned one cat slurry tank through traditional manual cleaning. The process entailed high waste disposal costs and took longer than the company would prefer. Also, personal and operational safety was at risk. This prompted the management to try automated tank cleaning, eliminating the need for tank entry and ensuring an efficient, cost-effective cleaning process.

The cleaning procedure

STS entered the picture in March 2007. STS has over a decade of experience with safe, automated tank cleaning and oil recovery throughout Europe, and Managing Director Jorge Oteiza is a firm advocate of the Oresco BLABO system. Preparations and compliance checks complete, the modular, fully automated BLABO system was mobilised on-site. Ni-



The cat slurry tank at Fawley Refinery in the UK was cleaned by STS and ready for operation in just 15 days – and no staff had to enter it during the cleaning process.

trogen was introduced to create a safe atmosphere for tank cleaning. The target was 8% Oxygen volume in air to eliminate the risk of explosion. With the atmosphere made safe, the desludging process began using any remaining oil in the tank as initial flushing medium. Then, heated LCO (Light Cycle Oil) washing was begun. The LCO was re-circulated through the BLABO system and back into the tank via the nozzles, simultaneously cleaning the tank and separating the hydrocarbons.

Says Mr. Oteiza: "Maximum hydrocarbon recovery is a key asset of the BLABO system. The value of this recovered oil is part of what makes automated tank cleaning a financially advantageous option."

Washing complete, tank opened

The LCO wash was repeated until the high standard specified by ESSO was met. Then, ejectors degassed the tank to raise Oxygen levels back to 20%, leaving it ready for operation.

Client pleased: "Cleanest we've ever seen"

The Fawley Refinery was very pleased to have its tank back in just 15 days. The results proved impressive; when the tank man-holes were opened, managers and supervisors all stated that they had never seen a slurry tank that clean in all their years in the business. And the results were not only achieved with speed; money was saved on waste disposal and, best of all, no people were subjected to any risk.

Facts and figures

Location:	Fawley Refinery (ESSO), UK
Contractor:	STS Tank Cleaning Services
Tank size:	Diameter: 39.46 meters Height: 14.60 meters
Tank content:	Cat slurry
Roof:	Fixed roof
Sludge content:	1,832 m ³
Time consumpt.:	15 days
Recovery rate:	97.8%
Recovered oil:	1,791 m ³
Value of rec. oil:	USD 675,900 (USD 60/bbl)