CASE STUDY: OFFSHORE ASSET IN THE IRISH SEA

SPECIALIST CLEANING

PROJECT INFORMATION

Date: March 2024

Location: Offshore Asset, Irish Sea

HSEQ: No loss of time incidents and scope completed without any environmental incidents.

SCOPE OF WORK

Stork was contracted by a major UK-based operator to complete specialist cleaning works on six heat exchangers which were operating at reduced capacity on an offshore asset in the Irish Sea.

Upon investigation of the tube bundles, it was noted the external shell was clogged with solidified scales and the tubes had partial blockages due to wax and scale build up, which ultimately led to an impact on production.

Tube bundles explained:
Tube bundles are located inside shell and tube heat exchangers. The tube bundles are positioned within a cylindrical shell, where fluids at different starting temperatures (either liquids or gases) pass through and over tubes.

Photo: Before cleaning

STORK'S APPROACH

Conventional retro-jetting didn't provide the desired end result. Therefore, Stork's team of experts re-assessed the scope and altered the methodology to tackle the challenge. This ultimately ensured our client's expectations were met. The deployment of a specialist pencil jetting unit was utilised to remove the hard scales. Also the use of a BJV centraliser was used to protect the tool as it passed through the pipe and balanced the jet stand-off distance for a more consistent clean.

A 9-man multi-disciplined team mobilised at various times throughout the scope, working a range of day / night shifts. Through use of bespoke jetting techniques, the team cleared the tube bundles and shell of scale and debris to allow for an Internal Rotary Inspection System (IRIS) inspection to take place. This advanced ultrasonic non-destructive testing (NDT) technique is used specifically to inspect pipes and tubes.

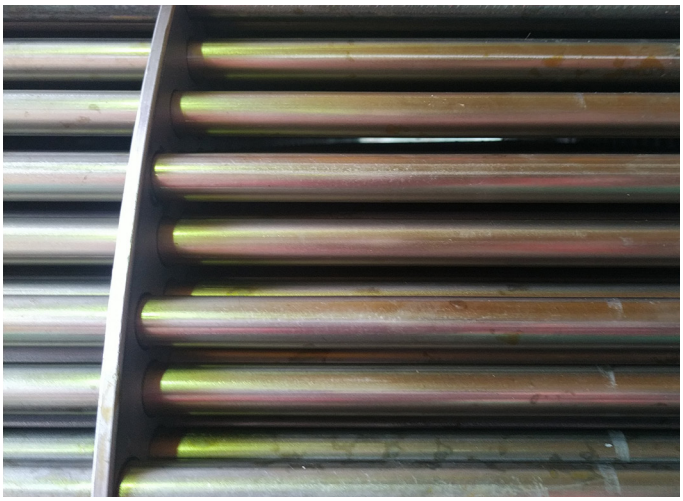

Photo: After cleaning

THE OUTCOME

- Before starting the job, all worksites were safely set up with bunds, which were erected to contain all liquid and debris
- All Stork personnel were suitably qualified, along with certified plant and equipment to carry out the scope of work without delay
- Work was carried out with a safety-first approach and as a result, no accidents, incidents or injuries occurred
- The six heat exchangers were cleaned to the client's satisfaction and back up to full working capacity