

CASE: Chemical Cleaning of Cooling Systems

Efficient and Cost-saving cleaning - ranging from several weeks down to only 2 days!

Ocean Team saved the customer both time and money by chemically cleaning its cooler directly on the Oil and Gas platform. The alternative would be a "Back to Back" solution, which could take up to several weeks.

On an oil and gas production platform in the North Sea, a problem with the cooler performance was observed. The flow was all the way down to 15%. This can be a sign that the system is contaminated with undesirable fouling deposits.

It can be quite a task to keep the pipes free of undesirable harmful substances such as rust, calcification and other organic/inorganic materials. Fouling deposits of such substances have a negative effect on the production system, because they reduce flow, increase the pressure drop, decrease heat transfer and, at worst, cause blockage, corrosion or leaks.

The customer was facing a problem here, which needed to be solved as quickly as possible in order to normalise production again. The cooler needed to be cleaned in order to achieve an acceptable cooling effect again.

Previous Procedure:

"Back to Back" solution - Time: up to several weeks.

Up until now, the normal procedure for cleaning coolers has been laborious dismantling as well as a "Back to Basic" solution.

One by one, the coolers were taken out of operation, dismantled and a cleaned cooler was installed, which a ship had shipped out to the production platform. The defective cooler was then shipped back to land for mechanical cleaning.

This was repeated until desired coolers were cleaned. Such dismantling of the heavy coolers was a very time consuming and often dangerous process.



Ocean Team's Solution:

Chemical cleaning - Time: 2 Working days per cooler.

Ocean Team could, however, offer a significantly better and faster solution. Using chemistry, it was possible to carry out cleaning in only 2 working days per cooler. The fast cleaning resulted in the production platform being able to normalise their production significantly faster and thus minimise the loss of production.

In addition to the faster cleaning time, the advantage of the chemical cleaning method was also that the cooler did not need to be dismantled – which is also safer, and there was no need for shipping to and from land for mechanical cleaning. The coolers were now taken out of operation in turns and cleaned on site.

After the chemical cleaning, we saw that the flow of the cooler increased from 15% to 85%, which one can say is a significant improvement on the cooler, which again produces optimal cooling for the Oil and Gas winning process.



◀ *Before
chemical cleaning*



After ▶
chemical cleaning