Case study 222

Temporary boiler aids acid storage

The closure of an old oil refinery in Wales in 2014 came as a result of the company in charge switching their focus from production to conducting scientific research. Despite the plant's termination as a fully operational facility, it was not possible to simply decommission steam boilers as hydrochloric acid contained within a tank on site would freeze at temperatures of 12°C and below.

Initially our client had no solution as they had been utilising steam which was to be decommissioned and there was no temporary heat source in place, and due to vapour expansion the existing coil would not suffice. Fortunately one of our technicians noticed a 1" pipe running parallel to the coil whilst conducting a site survey, which would help us propose an alternative.

Our response was to supply a 100kW diesel fired boiler which, with the combined used of spark arrestors and chalwyn valves, ensured we were able to maintain the minimum 12°C temperature. By preventing the tank's contents from freezing, the system itself was protected from potential damage whilst vital stock was retained.

The boiler we provided guaranteed a hot water source throughout December and January, enabling our customer to sell all hydrochloric acid to a well-known transportation fuel company. This was collected inside a specialist tanker and kept within strictly controlled conditions until the transfer was complete. Our unit was off-hired approximately two months after the project commenced, with the client thanking Andrews Boiler Hire for our prompt service and exceptional engineering support.

- Nominal heating duty 100kW
- Power supply 230V 1ph 50Hz Run 10A
- Plug type BS4343 16A
- Noise level 45dBA @ 10 metres
- Weight 1,230kg
- Dimensions (mm) 2200 x 1550 x 2400
- Fuel type Gas oil/natural gas
- Max fuel consumption 12.5 l/h
- LPHW connections 25mm (2") storz coupling
- DHW connections 25mm (2") storz coupling
- Natural gas connections 0.75" BSP coupling