

Martek warns on oxygen

Gas sniffers sounds the alarm on vapour control and collection

The US Coast Guard (USCG) lays down several special requirements governing the capabilities of vapour control systems on tankers.

Amongst these requirements, Section 39.40-3 of Title 46 of the US Code of Federal Regulations (46 CFR 39.40-3) states, "If the cargo tanks on a vessel both discharging and receiving cargo are inerted, the ship must have means to inert the vapour transfer hose prior to transferring cargo vapour and also have an oxygen analyser with a sensor or sampling connection fitted within three metres of the vessel vapour connection."

This regulation goes on to state that, "If the oxygen content in the vapour collection system exceeds 8 per cent by volume, an audible and visible alarm must be activated."

In response to these requirements Martek Marine Ltd has developed its Vecsafe device to monitor oxygen and pressure in vapour emission control (VEC) systems. Vecsafe combines Martek's MMS3000 oxygen sensor, MMS200 pressure sensor and GDS404 control panel to enable compliance with the USCG provisions.

"The operation of Vecsafe is fully automatic so, unlike conventional systems, there is no requirement for personnel to change settings, thus alleviating the risk of human error," states Steve Coulson, Martek sales director.

"Vecsafe sensors can be easily installed via a simple threaded boss and three-way valve for ondeck calibration. The arrangement of one dedicated oxygen sensor per vapour line enables continuous monitoring of all vapour lines simultaneously. The MMS3000 oxygen cell is replaceable, ensuring easy maintenance and saving costs on replacement sensors."

Vecsafe provides local audio/visual indications of alarm conditions, along with relay contacts for driving optional remote alarm annunciators to give early warning of a potentially hazardous situation. A100 repeat alarm panels for positioning on the bridge are also available.