

The article looks at risk factors offshore, and focusses on PyroSentry's groundbreaking innovation and what this means for the industry as a whole.

The changing shape of offshore safety solutions

METHANOL IS ONE of the biggest risk factors where offshore fires are concerned; it's the most commonly used hydrate inhibitor because of its relatively low cost and high thermodynamic effectiveness, which means it's stored offshore in reasonably high quantities to maximise output. It is a colourless, toxic and highly flammable liquid and can travel considerable distance to the source of ignition, burning with a colourless flame, making manual fire detection difficult in the very initial stages.

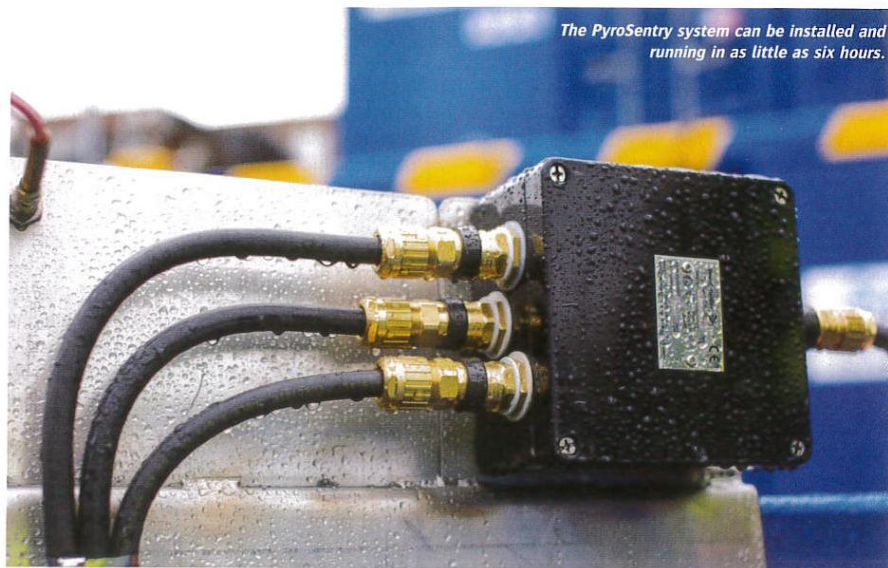
ScanTech Offshore's award-winning PyroSentry system can be installed and running in as little as six hours. It is available with a bunded option to avoid any leakage of methanol to the rig structure, provides both audible and visual alarms and is a 100 per cent independent system. In addition to the base system, AR AFFF equipped fire-fighting trolley units can also be supplied as a secondary protection measure, together with a thermal imaging camera to support methanol fire assessment and safety, providing a complete offshore solution.

Heralded as the future in offshore safety solutions, the IADC has recently championed PyroSentry's groundbreaking innovation with the presentation of an Associate Member Award in its North Sea Chapter series. Unlike any other safety product currently in operation, PyroSentry has an automated fire detection system with suppression functionality built in.

So how does it work? Based on a protection method, the PyroSentry mechanism essentially uses specialist Fire Trace Detection Tubing® (FDT) to encompass the containment area of hazardous chemicals. The (FDT) is charged to 12 Bar with dry N2 nitrogen. In the event of a fire, the (FDT) tube will burst, automatically triggering an alcohol-resistant aqueous film-forming foam, suppressing any fire within just seconds of it starting and raising an alarm. Not only does this protect hazardous and highly flammable chemicals, reduces the risk for offshore crews and give response teams greater chance of gaining control of the situation, it also allows for enhanced efficiency and less interruption to operational productivity if and when a fire does break out.

Safety and efficiency

Safety and efficiency are the two factors at the heart of PyroSentry's development and it's easy to see why the two go hand-in-hand. An increased safety solution that allows an offshore installation to carry greater quantities of methanol and other hazardous chemicals, because they are always protected, allows



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for less interruption in drilling capacity.

The suppression technology that the system uses has actually been around for some twenty years and has been used in various other guises and functions throughout that time; but it's only in more recent years that ScanTech Offshore has tapped into the possibility of employing it in the search for a more robust methanol protection solution.

Robbie Garden, business development manager at ScanTech Offshore, spotted the opportunity for channeling the existing technology into a product that could change the shape of safety standard across the industry. After two years of advanced development, the team was confident that this innovation could detect leaks and suppress ignited gases within seconds. And so PyroSentry was born.

Its first live trial on site in Australia was hugely successful and the thorough 12-month internal testing programme saw the trials expand to projects in Trinidad, Oman and parts of Africa too, focusing on the global relevance that a new and improved safety solution can bring. Following extensive testing on leakage rates and ultra violet radiation, ageing and breakdown analysis, and extreme temperature assessments, among others, PyroSentry was put to the test by some twenty plus third-party independents to secure accreditations. The solution now carries several internationally recognised listings supporting the ISO 9001 mark carried by ScanTech Offshore.

Robbie Garden commented: "It's been a long time in the making but to see PyroSentry come to

fruition and start to roll out across rigs of some of the major players in the industry is credit to the passion and dedication of the development team. The rigorous development and testing cycle has meant that we have a safety solution here that will start to change the way we manage safety offshore now and into the future. It's incredibly exciting to be a part of such a process."

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It's still very early days in ScanTech Offshore's global roll out strategy for PyroSentry but the industry's reaction to its innovation is a sign of the industry's likely approach to adopting such technology in preventative and suppressive safety systems. The industry is already seeing a shift in the way offshore installations are approaching safety and some of the industry's big players are getting on board in adopting PyroSentry and the next generation of safety solutions. The likes of ENI, Total, Global, Exxon Mobil and Chevron have all started to introduce PyroSentry to some of their offshore installations and Shell too is in the process of joining the safety revolution, taking their approach to a whole new level. ■