



## Growing global focus on corrosion fights short-termism

by Mark Dunham, technical director, Metacor

*“Operators in the Middle East are increasingly aware that to ensure the ongoing productivity of their assets, planning out a full fabric maintenance programme is essential”*

**The global oil and gas industry heard first-hand the vital importance of corrosion management to the future of exploration and production at events in Aberdeen and Bahrain in December.**

Corrosion was a major focus of the IQPC's Mature Assets Conference in Aberdeen and the Oil & Gas Maintenance and Technology Conference in Manama.

The IQPC estimates more than 70% of world oil and gas production comes from mature assets and its event at the Ardoe House Hotel in Aberdeen addressed the challenge of ensuring aged assets are effectively, safely and economically developed.

The unveiling of the Health and Safety Executive's External Corrosion Project this year has brought a real focus on the work required to increase safety and manage the cost of maximising the use of mature assets, a growing percentage of which are now responsible for high volumes of production.

The HSE had already produced an “external corrosion guide” to highlight the seriousness of the issue and steps which can be taken to reduce asset failure risk and subsequent injury or loss of production.

Forward-planning of coatings and corrosion work has the effect of preventing the kind of maintenance tsunami which the owners of mature assets may require to carry out to ensure the longevity of a platform – which is what we hope we proved to delegates at Ardoe House when presenting to the IQPC event.

Basic corrosion prevention measures – principally protective coatings and painting – must become and remain a priority. It is already well known that 50% of the assets in the North Sea are more than 25 years old and in some cases already on the brink of their original predicted life in use.

The most obvious are instances of holes in walkways and helideck supports, vital escape routes on oil and gas infrastructure.

Small-bore pipework, a vital part of the infrastructure which carries hydrocarbons, is



Mark Dunham

heavily prone to external corrosion. The budget set aside for paint and coatings maintenance of these parts is almost certainly considerably less than that afforded to major pipeline infrastructure.

The result is the potential for hydrocarbon leakage – bringing environmental damage and, in the worst-case scenario, the potential for a major incident such as an explosion.

Outside of the oil and gas industry, the Forth and Severn road bridges are being threatened by the effect of corrosion on support cables.

External corrosion may only begin to be noticed after 10 years, however it begins to compromise any ferrous material quickly and consistent management is in, my opinion, the only method by which the need for urgent, major remedial work can be negated.

The scale on which it is affecting major infrastructure continues to grow. Assets are working harder and longer. We must look to do much more to protect the investment made in the industry in the first place. More efforts must be made to plan and carry out long term management strategies which would lengthen

their operational life and protect workers, the environment and our investment.

This task – to continue to meet global energy demand while ensuring the integrity of production facilities remains safe – is being highlighted in every region involved in oil and gas exploration.

Operators in the Middle East are increasingly aware that to ensure the ongoing productivity of their assets, planning out a full fabric maintenance programme is essential.

That the focus on the very negative effect of allowing corrosion to progress untreated is now growing to the extent where we have large-scale events supported by the major oil companies in maturing production regions like Bahrain, indicates just how seriously they are taking the issue.

We need to move away from the culture of short-termism which has affected the industry from the start – the legacy of deferred coatings maintenance is coming home to roost. The cost of preventative maintenance may run into billions of dollars but this is a fraction of the cost of the alternatives. ■