

Do we need cathedral thinkers?



SAFETY

Les Linklater

You don't need a survey to find out how effective you are at engaging with clients, companies or your workforce – as the classic short story of the stonecutter and Christopher Wren details perfectly.

One day, after work on his cathedral had begun, Christopher Wren, unrecognised by the workforce, walked among the artisans and stonecutters.

"What are you doing?" he inquired of one of the workmen, and the man replied, "I am earning five shillings two pence a day".

As he went on he put the same question to another man, and the man replied, "I am cutting a piece of stone to make sure that it's square, and its dimensions are uniform, so that it will fit exactly in its place in a wall".

And to a third man he addressed the same inquiry, and the man answered, "I am helping Sir Christopher Wren build a beautiful cathedral".

Whether you call it workforce involvement, engagement or inclusion,

the stonecutter got it. He understood the vision and most importantly where he played his part in it. This just didn't happen by accident.

And that's why at Step Change in Safety our Workforce Engagement Toolkit identifies behaviours and informs of four key input dimensions.

It starts with visibility. This is all about spending time with the workforce on regular planned visits to worksites, to build relationships with our colleagues on a one-to-one basis. It also details that we need to consistently demonstrate that production, time and cost pressure never compromises safety.

Secondly, we need to ensure we have effective communication, ensuring the "what" and the "why" of expectations are clearly understood by all groups in the organisation. Communication must not be a lecture or monologue; we must also listen to views on safety-related matters and provide honest and timely feedback.

Furthermore, we need to facilitate involvement. We need to advocate and ensure the early involvement of the workforce when planning business changes, which may affect their safety, and encourage and recognise contributions that drive further improvements.

And finally support. We must set clear expectations regarding safety for each worksite location and role, and hold ourselves and each other to ac-



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count. However, we must also provide the time and appropriate resources the workforce needs to be involved in a meaningful way.

Most companies have some form of engagement survey, within our toolkit there is a survey – and in the interests of balance there are many more available out there.

We have them for a reason, the data and insights are quantifiable but the value is created, not in running the survey but in the identification of what needs improved and carrying out that improvement.

If nothing gets better we enter the cynicism and negativity drive – a vicious cycle of disengagement rather than a virtuous cycle of engagement.

We don't need another 40-question survey to understand if we are in a vicious or virtuous cycle. The stonecutters' story powerfully illustrates the importance of perception in our approach to workforce engagement. Instead we should ask just one question: What are you doing? Consider the responses we'd receive if we did.

Are we just earning a living with no perceived connection to the overall

purpose? Are we doing the best job we can, but in isolation, too focused on a functional or professional perspective; driven by individual achievements or performance at the expense of the greater good? Or, like the last stonecutter who play his part in helping build a cathedral.

Offshore installations, like cathedrals, are incredible testaments to human endeavour. From those who designed them, to those who first worked on them, and those who commissioned them – these people probably never considered that they would still be there almost fifty years later.

There may not be a need to build many more new offshore installations but we do need to build cathedral thinkers. People who are enabled to think beyond their immediate task.

Beyond the perceived limits and boundaries of their organisation, and possibly our own lifetimes, to see where each of us fits in sustaining safe and efficient operations for this and the next generation.

So, if you are frustrated with not being able to change your culture and want to break the cycle of cynicism and negativity, use the data you already have to kick start the change. Do it quickly and consistently. If you don't have any data, just ask – What are you doing?

Les Linklater is executive director of the initiative Step Change in Safety

Flexible pipe wire monitoring on FPSOs



APPLIED TECHNOLOGY

Andreas Boenisch

Flexible pipe sections stacked in the masts of the turret drag chain on FPSOs (floating, production, storage & offloading vessel) are often subjected to external "tensile armour wire disorganisation".

Gamma radiation with images being captured on a film has been the traditional method of inspecting these flexible pipes and although this technique is widely used throughout the industry, it poses several issues.

However, radiography could not be performed in the direction of the FPSO's nucleonic detectors as this would trip the vessel's high-integrity pressure protection system (HIPPS), causing an unplanned production outage.

The entire turret area has also to be shut off to personnel during the inspection as radiography poses a significant danger to health and this pre-

vents routine operations from taking place in the vicinity.

In the case of one North Sea operator, radiography could only achieve around 50% of the required work despite the inspection being performed for over nine months of the year.

Innospection was approached by said operator and invited to investigate a better way of inspecting the 6-inch and 10-inch flexible pipes on the FPSO's turret with the aim of identifying, monitoring and measuring the increasing wire gaps of the flexible pipes.

The electromagnetic MEC-FIT technique developed by Innospection has normally been used for the inspection of flexible risers and pipes for the detection of cracks, pitting and general corrosion in single and multiple wires.

As the inspection requirement aboard the client's FPSO differed from the intended inspection capability of the MEC-FIT technique, the technique was redeveloped to enable the detection of signals from the surface and its repeatability in determining the individual wire gaps of the flexible pipes.

Another inspection challenge was the tight 150mm gaps between the flexible pipes where the inspection tool had to fit in.

As a result, the flat MEC-P7 scanner was designed, developed and built. It is a small, bespoke tool that has a customised high resolution encoded drive



Main picture shows the turret on the FPSO and, inset, the MEC-P7 scanner

for precise definition of the edges and distance to the neighbouring pipe.

Both the technique and scanner were successfully tested and validated onshore on an old section of a flexible hose with intentional damages prior to the offshore deployment.

All the 6-inch flexible hoses which make up 40% of the turret system were scanned in just two weeks.

In addition to better coverage while maintaining image quality, the MEC technique has eradicated the risk radiation posed to personnel. Just two

fortnightly trips are now required instead of multiple trips to complete the required inspection which results in substantial cost savings.

Andreas Boenisch is group MD at Innospection