

HARD HATS AND FLIP-FLOPS – SOME PERSONAL VIEWS ON OIL INDUSTRY SAFETY



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—Much of my offshore career was dedicated to the introduction of ROVs to displace the North Sea diver – diving being one of the most hazardous jobs of that era. But despite our success, a respected colleague was killed by the cure, crushed as he reached out to steady a two-ton ROV swinging on its lift line.

On that late summer day in 1980, we received an excellent pre-flight safety briefing in the departure area before, immersion suits donned, we boarded the helicopter and charged out into the South Atlantic. When we touched down onto the helideck of the offshore production platform, we were quickly moved away from the noise of the rotor blades into the reception cabin. Again, another first-class safety briefing, but this time, we were issued with H₂S masks – the production here contained a high level of the invisible killer. We exited the room and outside on the walkway was a man painting the wall. In his left hand a one-gallon paint can, in his right a brush. And he was at first glance properly equipped, with overalls and hard hat, but on his feet were flip-flops. If he had dropped the can, it could have removed his toes.

Several thousand miles north and eight years later on July 6 1988, 167 men died in the explosion and inferno that devoured the *Piper Alpha* offshore platform, because of what is nowadays called 'human error'. A tube to a pressure safety valve on a backup condensate pump had been removed for service and a temporary closure plate fitted to the pipe end. Later in the evening during the next work shift, the primary condensate pump failed. None of those present were aware that a vital part of the machine had been removed and decided to start the backup pump. Gas escaped from the hole left by the valve, ignited and exploded. The automatic deluge system was not activated because it had been turned off. Amongst other findings, it was concluded that if the 'permit to work' system had been implemented properly, the initial gas leak would never have occurred.

I had spent some 12 years prior to this event working in the various aspects of the underwater contracting business, and although I was not a full-time offshore worker, I had a number of near misses: the helicopter that crashed a few feet from me on the Brent Spar helideck, the ship's mooring cable that parted a couple of feet above me as I was repairing a remotely operated vehicle (ROV) below it, showering me with fragments – if I had been standing not kneeling, it would have removed my head. Both were incidents that should not have occurred – but they did. Then on one occasion, pressure of work meant that I missed my flight home on the company plane – it crashed!

Much of my offshore career was dedicated to the introduction of ROVs to displace the North Sea diver – diving being one of the most hazardous jobs of that era. But despite our success, a respected colleague was killed by the cure, crushed as he reached out to steady a two-ton ROV swinging on its lift line. We all make mistakes, but mostly we survive our mistakes and learn from them.

The fact remains that the offshore oil and gas industry is potentially very dangerous, and in response to such events as *Piper Alpha*, it has developed a culture of safety that is now deeply ingrained – but perhaps too much so. Are we now at the point that everyone expects their workplace to be completely safe and so stops thinking for themselves?

A new industry has developed. An army of people fix hazard signs on trivia, the number of lapses of Health and Safety at work regulations reported by an oil-industry worker becomes a plus factor in their annual reviews and industry meetings begin with a 'safety moment'. At my own firm, a visiting oil company man returning to the meeting after a 'comfort break' interrupted the proceedings to put on record a safety lapse – the lavatory seat was loose! In other oil company offices, signs instruct staff on how to walk up and down stairs safely.

Perhaps all this money could be better spent. In my view, the box ticking and patronising safety sign culture has served to remove our reliance on basic common sense, often with disastrous results. Addressing minor risks is important, but addressing the potential of a catastrophic disaster, and recovering from it, much more so.

So what is the relevance of all this to the *Deepwater Horizon* catastrophe? Over the past five years alone, more than 18,000 wells were drilled offshore, of which some 2,500 were in deep water

(greater than 500 metres). And nothing remotely like this happened – the offshore oil and gas industry has in the last 22 years achieved an excellent safety record. As a result of some individual past disasters such as *Piper Alpha*, it has become safety obsessed, and both hardware and procedures are based on layers of fail-safe systems. So it is very difficult to understand why the *Deepwater Horizon* tragedy ever occurred.

At present, there is much speculation. But the answers to what went wrong, why 11 men died and why millions of barrels of oil were dumped into the Gulf of Mexico will have to wait the analysis following the recovery of the blowout preventer and the full investigation. All of us know that the BOP is designed to be fail-safe, but it seemingly did not, and more fundamentally, as an industry, we were unprepared and totally lacking in appropriate hardware and procedures to quickly stop the flow.

Deepwater Horizon will have a major impact on the industry in the years ahead. We must understand what went wrong and learn from it. The industry will benefit greatly from that knowledge.

But perhaps we need a return to the thinking of the late 1970s, when Statoil was planning its first deepwater pipeline. This was designed and built to the highest safety standards of the day, but just in case the worst happened, a major deepwater pipeline repair system was also designed and tested, and then strategically positioned in a port to wait for the day it might be needed. It never was.

For most people, their only contact with the oil industry is filling their car. Next time, look at the safety notices – the pumps at my local filling station each have 10. Upon asking friends and colleagues, I have been unable to find anyone who has ever read any of them. So why are they there? To enhance safety or to act as a foil against predatory lawyers in the event that the worst happens?

When was the last time you actually listened to the pre-flight safety briefing, or looked at the safety card, or checked that the life jacket is under your seat, or counted the number of rows of seatbacks you will have to pass in the dark to fight your way to the emergency exit of the crashed plane?

As the increasing number of safety signs and suchlike relegates them to the status of visual background clutter, I believe that our lives become potentially more exposed to major disasters. The little routine things are important, but while the 'safety industry' ticks its boxes, are we ignoring the major hazards? Is a rebalancing of individual and corporate attitudes to safety required?

And what of the 'hard hats and flip-flops' offshore platform? Some months after my visit, it was destroyed in a massive explosion and fire.

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