The Virtual Barrier: A Paradigm Shift in Process Safety

By Lillian Espinoza-Gala

In March 2014, the Society of Petroleum Engineers (SPE) Aberdeen held the first international conference on how to address the type of risk assessment that drilling thought leader Dr. Patrick Hudson had written about for so many years. SPE Aberdeen selected Privchard to speak and also to be a panelist at SPE’s “Another Perspective on Risk – The Tipping Point,” keynoted by Lord Cullen of Whitekirk, the judge who conducted the Piper Alpha inquiry and published the “The Public Inquiry Into the Piper Alpha Disaster,” to look at Piper Alpha and Macondo. They asserted the lesson of the true cost in human lives.

An Offshore Engineer article from March 7, 2014, stated, “The stark warning was issued to delegates at SPE Aberdeen’s “Another Perspective on Risk” conference, which was organized to address the number of incidents occurring in recent years, despite the wake-up call from the Deepwater Horizon disaster.”

Lord Cullen, in his keynote address, reiterated the lessons of the Piper Alpha disaster, when he said, “Safety awareness at all levels should avoid any tendency to tolerate, cut corners, forget or fail to report, investigate and take last corrective action. That assumes, of course, a general commitment to safety which enables employees to report what has happened without fear of retribution.”

Privchard, ex-chair of the Pre-Commission Technical Commission for the Deepwater Horizon study group (U.S.), said, “With Macondo, as well as other operations I look at, there were unmistakable forewarnings throughout the design and execution process. It can happen again; it will happen again – we cannot dismiss early warning signs.”

In the long history of catastrophic blowouts, awareness of the social license to operate has never been greater for the global E&P industry. Companies with this awareness is the absolute mandate to ensure the safety, most responsible drilling practices are always dedicated to real-time technology to save money and manage the risk of well construction. The industry must leave behind 20th Century operating practices and adopt NASA-level technologies. For three decades, Measurement While Drilling (MWD) and Logging While Drilling (LWD) and real-time data from the major service companies dramatically improved. The industry jumped on these real-time data streams and used them to drill faster, deeper, and cheaper. As a result, there has been less focus on preserving human life and the environment.

At the same time, well complexity in deepwater, shale, and high-temperature, high-pressure formations has increased exponentially. The thin margin between the pore pressure gradient have still not been learned. These blowouts, as well as the others that have occurred and are still happening, demand new technological solutions that offer a dramatically different approach. The industry must leave behind 20th Century operating practices and adopt NASA-level technologies.

The DrillSage™ proprietary RTAS™ software proactively identifies root causes and tracks Avoidable Lost Time (ALT) under the premise that if something cannot be measured then it cannot be improved. In this way, main drivers are mitigated before they occur.

On July 6, 2020, a virtual remembrance will be held to honor the Piper Alpha disaster, which occurred 32 years ago, and resulted in the loss of 167 lives, leaving only 61 survivors. It also led to Lord Cullen’s The Public Inquiry Into the Piper Alpha, which resulted in 106 safety recommendations being made to the industry. He has the upstream industry failed to understand those hard lessons purchased with 167 lives, leaving only 61 survivors.

“Another Perspective on Risk – The Tipping Point” conference, which was organized to address the number of incidents occurring in recent years, despite the wake-up call from the Deepwater Horizon disaster. The leaders at the summit spoke and also to be a panelist at SPE’s “Another Perspective on Risk – The Tipping Point,” to look at Piper Alpha and Macondo. They asserted the lesson of the true cost in human lives.

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1. Vol. 10, 319 have been released into the public domain and can be downloaded free of charge. https://www.hse.gov.uk/offshore/piper-alpha-disaster-public-inquiry.htm
2. May 15, 2010, on Climate One Podcast. Listen to excerpt at Deepwater Horizon to Deflation

“Oil companies must have as their first mission protecting the lives of the tens of thousands of employees who work at the coal face of oil exploration and production. Protecting people and the environment must be elevated to the highest priority if we hope to maintain the social license to operate.” John Hofmeister, former president of Shell Oil Company, and the founder and CEO of Citizens for Affordable Energy.