Preparing for High-Risk, High-Consequence Situations

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In high-risk, high-consequence situations such as offshore drilling and exploration, one misstep can have far-reaching repercussions. But properly trained personnel, confident in the face of crisis, often know precisely what to do when faced with challenges. Their ability to respond properly can mean the difference between a minor incident and a full-blown crisis.

Unfortunately, labor shortages in the oil and gas industry brought on by the retirement of the baby boomer generation and exacerbated by rapidly expanding demand threaten to jeopardize safety standards. A recently published report by OilCareers.com and its partner Air Energi zeroed in on the significant workforce safety challenges facing the industry today. Nearly one-third of participants identified labor shortages as the largest threat to the sector, followed closely by a concern for the lack of skilled trainers.

As the industry booms, new personnel are being rapidly recruited to keep up with growth and high production rates. Those who already possess the training, knowledge, and experience are in great demand and are highly prized employees. To remain competitive, new workers entering the oil and gas industry must expand their skillset to include specialized safety training to manage their lack of hands-on experience.

Operators, service companies, and job seekers are encouraged and often required to pursue certification that ensures they are better trained to handle high-risk, high-consequence situations. Offshore drilling locations vary in difficulty, and safety training must take these variances into account as there is no one-size-fits-all approach to high-consequence training.

Oil and gas workers participate in hi-con’s survival training at the Johnson Space center. (image courtesy of hi-con)
One key resource the industry is increasingly turning to is Hi-Con Training, which was launched as a partnership between Petrofac Training Services and Raytheon, making its trade show debut at OTC 2012.

This joint venture has created a training facility that provides high-consequence training at the National Aeronautics and Space Administration (NASA) Neutral Buoyancy Laboratory (NBL) and the retired NASA mission control center. Previously used only to train astronauts for space walks, the NBL’s pool – measuring 62 m (202 ft) in length, 31 m (102 ft) in width, and 12 m (40 ft) in depth – is now where oil and gas workers are training to be better prepared for a high-risk environment, which is a common threat when working in offshore drilling.

Hi-Con offers a range of courses that last from one to three days. Several of the courses offered are Offshore Petroleum Industry Training Organization certified and include basic offshore safety induction and emergency training, emergency response and crisis management training, and major emergency management. Each course is limited to 16 students and focuses on hands-on coursework with state-of-the-art equipment. Courses can be tailored for an array of adverse environmental conditions to reflect the dangers of specific drilling regions around the world and in multiple native languages.

In addition to the NBL and mission control room, Hi-Con offers a fabrication facility with full engineering capabilities. Mockups can be created in the nonmetallic, sheet metal, or welding shop to test in the pool before operating offshore. This facility encourages operators to train and practice procedures and timelines in preparation of launching offshore missions. The NASA mission control center can be used as a mock control room identical to what is seen in drilling rigs to simulate emergency scenarios. A variety of drills can be replicated on location so that personnel are trained to handle a range of emergencies that can occur while on a rig.

Industry experts predict an increase in rigid safety operating standards in the Gulf of Mexico due to the Deepwater Horizon incident. Operators, service providers, and individuals who recognize the advantages of receiving safety training for the high-risk, high-consequence aspects of their jobs will be better prepared for challenges that may arise during offshore drilling.

To learn more about Hi-Con’s offerings, please visit booth 12214 in the OTC Pavilion.