

Personnel competence is key to safety

Baker Hughes chooses IECEx for equipment and personnel certification

Article based on an interview with Norman Ditrich, Baker Hughes

Safety in hazardous areas is non-negotiable. When equipment is not installed, maintained, inspected or repaired by competent persons and according to strict Ex standards, the outcome can be devastating. What may be tolerable in non-explosive atmospheres can, in a different environment, lead directly to explosions that not only destroy property but can cost human lives or cause severe injuries.

Certifying competence and skills in the Ex field

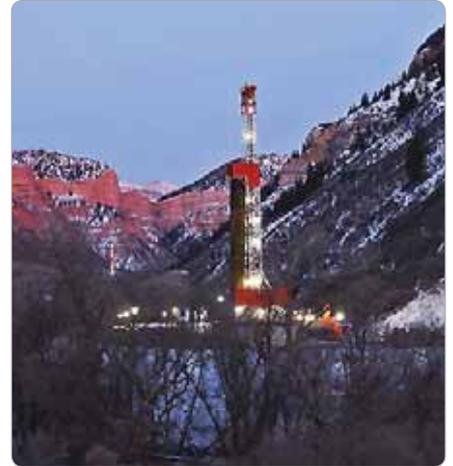
To meet Ex industry's needs and ensure that all safety aspects have been covered, IECEx, the IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres, launched the CoPC (IECEx Certificate of Personnel Competence) Scheme in early 2010.

The CoPC Scheme provides companies working in the Ex field with independent

proof that a person has the required competence and capability (based on qualifications, experience and demonstrated ability) to implement the International Ex Standards and to work on, or repair, equipment located in hazardous areas. This can be especially important for consultants and contracted staff. The international IECEx certificate is personal, non-transferable and valid across international borders. As well as the certificate itself, IECEx-approved personnel are also furnished with a wallet-sized identification card with photo, providing instant proof of certification.

The CoPC complements the other IECEx Schemes – IECEx Certified Equipment Scheme and IECEx Certified Service Facilities Scheme – to ensure that equipment and people working in the Ex field operate in the safest possible conditions.

Since its launch 2 years ago, the CoPC Scheme has been thriving, with more than 100 certificates delivered



A gas well located in the US Rocky Mountains (Photo: Baker Hughes)

to date. Of those, 15 were issued to Baker Hughes Incorporated, the highest number ever issued to one company. This number is expected to grow to 20 in a few months. The Chief Engineer's Office of Baker Hughes is working to consolidate technical competence activities across the enterprise and the personnel certification process is a key element of the process.



The Baker Hughes Blue Tarpon™ stimulation vessel is designed to provide high-rate and high-volume stimulation treatments for demanding offshore operations (Photo: Baker Hughes)

CONFORMITY ASSESSMENT

Raising awareness and knowledge of explosion protection

For Baker Hughes, a global company operating in the oil and gas sector, with over 58 000 employees in more than 80 countries, safety is a must.

Back in 2009, a team of cross-functional subject matter experts – from a variety of areas including compliance, human resources, design and applications engineering and operations – was put together to enhance awareness and knowledge of explosion protection across the entire Baker Hughes enterprise. The early initiative taken by this small team met with executive approval to adopt the enterprise-wide Explosion Protection Policy by imposing training and competence requirements on various levels of personnel. The training was designed for anyone involved in the areas of operations, repair and maintenance, supply chain and engineering of equipment used in hazardous atmospheres.

This mandatory training consists of internally-developed online modules. In addition, there are internal/external instructor-led courses which include: awareness training for managers, supervisors and operations personnel and certifying technicians who repair or install hazardous area certified equipment and design engineers who are responsible for the safe design and regulatory compliance of equipment.

For a company operating worldwide, beyond compliance with regulations, competence for safety is a top priority. Says Norman Ditrich, Senior Regulatory Compliance Engineer, Baker Hughes Chief Engineer's Office: "Not only is equipment certification important, but those who design, install, use, and maintain it must be competent to assure safe operations and give our clients the utmost confidence in our services."

IECEX CoPC 'best in class'

The IECEX CoPC Scheme was chosen as the 'best in class' programme to assure confidence that Baker Hughes

personnel are well qualified and have the competence needed to perform their duties safely in the hazardous environments in which they operate across the globe.

Baker Hughes sees the IECEX System, which has been endorsed by the United Nations through UNECE (United Nations Economic Commission for Europe), as the premier hazardous area safety and certification system based on globally-accepted IEC International Standards. Ditrich explains that, "Because it is a true ISO/IEC Type 5 Certification System for equipment as well as personnel competence, it gives our clients added confidence that we can provide safe

equipment and operations under the hazardous conditions of oil and gas exploration and development, wherever we are in the world".

Ditrich adds that Baker Hughes sees IECEX as being integral to defining key criteria for competence: "Because personnel competence certification is so important, we have continuous training and certification programs being conducted throughout our community of professionals across the globe. We have many full time technical training and competence professionals to develop and deliver the training programs as well as technical mentoring that take place daily throughout the organization."



Baker Hughes deploys an automated directional drilling assembly on a well in Canada (Photo: Baker Hughes)

About Norman Ditrich

Norman Ditrich has a degree in Mechanical Engineering from Penn State University. His career spans over four decades and includes several companies involved in exploration, development, measurement, transportation, and the processing of hydrocarbons and

chemicals. He has worked for Baker Hughes for more than 20 years and his current position is Senior Regulatory Compliance Engineer, Chief Engineer's Office. He is responsible for electrical product safety approvals and certification of all product line equipment to the

relevant global regulations for explosive atmospheres.

Ditrich is a member of the US National Committee of the IECEx System and one of the 15 Baker Hughes' staff who have received their CoPC as of this publication.

About Baker Hughes

For more than a century, Baker Hughes has been providing services for the global oil and gas industry that help improve productivity as well as

reduce risks and costs. The company creates added value from oil and gas reservoirs with high-performance drilling, evaluation,

completions and production technology and services, integrated operations and reservoir consulting.