

Taming the Ex factor

Kerry McManama plays major role in IECEx development and growth

The following article is based on an interview with IECEx Chairman Kerry McManama

Oil and gas refining, chemical processing, coal mining, paper and textile manufacturing, grain handling and storage, sugar refining. These are very different industrial sectors that have one thing in common. They all have hazardous areas in which flammable liquids, vapours, gases or combustible dusts present a fire or explosion hazard. The use of on-site electrical equipment just adds another spark to this dangerous mix. IECEx, the IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres, is globally recognized as helping companies tame hazards in Ex (explosive) areas.

Kerry McManama

IECEX Chairman Kerry McManama, a US citizen, has been involved in IECEx almost since its inception. He has seen it grow and expand and has participated actively in its development and management. He joined UL (Underwriters Laboratories) in 1992 and three years later was offered a position in UL's Hazardous Locations Services. Certification in the Ex sector was in full expansion at that time and McManama played a major role, first in the UL services and then in contributing to the development of IECEx, which was created in 1996.

Getting involved internationally

McManama's involvement with IECEx began in 1998 when he attended the IECEx annual meeting in Paris, France, as an observer. Upon his return to the USA, he helped set up the US Member Body of the IECEx, and served as its Chairman for two terms.



Kerry McManama, Chairman, IECEx

McManama subsequently became Chairman of IECEx ExTAG (Test and Assessment Group) for one and a half terms before being elected Chairman of IECEx. He is now nearing the completion of his first term as Chairman and was reelected for a second term at the 2011 IECEx annual meeting in Split, Croatia in early September. The election is expected to be approved by IEC CAB (Conformity Assessment Board) during the IEC General Meeting in Melbourne in October 2011.

IECEX rapid expansion...

In 15 years, the IECEx System has grown tremendously, becoming the first truly international certification system for the Ex sector. In the early days, the system focused exclusively on product testing and certification through the IECEx Certified Equipment Scheme. It established its expertise, expanded membership, increased the number of approved ExCBs (Ex Certification Bodies) and ExTLs (Ex Testing Laboratories) and developed a solid customer base. More and more, manufacturers of Ex equipment have come to rely on IECEx for the certification of their products.

...and diversification

The key word for the first decade of the 21st century is diversification. Several new services have been put in place to respond to strong industry demands. As part of the IECEx team, McManama has been involved in all these developments.

The IECEx Certified Service Facilities Scheme was introduced in 2007,



From left: Hiromichi Fujisawa, Chairman, IEC CAB, Chris Agius, IECEx Executive Secretary, Lorenza Jachia, Secretary of the UNECE Working Party on Regulatory Cooperation and Standardization Policies, and Kerry McManama in front of the United Nations in Geneva, Switzerland

followed by the IECEx Conformity Mark Licensing System in 2008. Early in 2010, IECEx launched the IECEx Certificate of Personnel Competence Scheme for individuals working in the Ex sector.

Teamwork is all

Teamwork is the key. All efforts put in by McManama, together with IECEx Executive Secretary Chris Agius and the IECEx Officers and Executive team, are bearing fruit. They participate in a great number of conferences and events all year round to promote the System and to inform and educate stakeholders and customers.

United Nations endorsement

At the end of 2009, the United Nations, through the UNECE (UN Economic Commission for Europe), formally endorsed the use of an internationally recognized certification system, IECEx,



IECEx certifies the competence of individuals working in Ex areas such as oil rigs

to promote safety of equipment in explosive areas. Early in 2011, UNECE issued a publication, *A Common Regulatory Framework for Equipment Used in Environments with an Explosive Atmosphere*, which helps outline the

hazards in environments with a high risk of explosion such as mines, refineries, chemical plants and mills. The UN publication cites IEC International Standards and IECEx as the references in standardization and conformity ▶

About the IECEx Schemes

IECEx Certified Equipment Scheme
An IECEx Certificate is like a passport for manufacturers of Ex equipment. It provides clear proof of claimed compliance with International Standards. It certifies that the equipment in question has the right level of protection and gives products access to foreign markets without the burden of repeat testing. It provides assurance that products bearing an IECEx Certificate conform to the International Standards listed on the same Certificate, and are under a product surveillance programme to ensure continued compliance with the Standard.

IECEx Certified Service Facilities Scheme
Equipment and machinery used by companies operating in hazardous areas have a much higher capital cost than the same equipment used elsewhere. Once purchased and installed, the equipment has to last many years. This is why repairing the equipment is more cost-effective than

replacing it. There are also compatibility issues relating to replacement. In response, the Ex repair industry has emerged, along with IEC 60079-19, *Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation*. The questions for industry have been:

“How can I be confident that an Ex Repair Workshop has:

- The required repair facilities, specified in IEC 60079-19?
- The required systems in place?
- The required skilled personnel?”

Industry has turned to IECEx for a solution: the IECEx Certified Service Facility Scheme. It assesses and certifies that the organizations and workshops which provide repair and overhaul services to the Ex industry do so respecting the strict requirements of IEC 60079-19.

IECEx Certification of Personnel Competence Scheme

While the assessment and certification of Ex equipment and the servicing of that

equipment were covered, one final piece was still missing: the assessment and certification of competence of those who work in the Ex sector. Early in 2010, IECEx launched the new CoPC (IECEx Certificate of Personnel Competence Scheme), which provides companies with independent proof that a person has the qualifications and experience necessary to implement the International Ex Standards. This can be especially important for contract staff.

To obtain a CoPC, a person prepares an application and submits it to an approved IECEx Certification Body. Regular re-assessment also ensures that the certified person maintains these competencies. The certificate is personal, non-transmittable and valid across international borders.

IECEx Conformity Mark Licensing System
IECEx has also established the IECEx Conformity Mark Licensing System. The ExMark provides immediate evidence that products bearing the mark are covered by an IECEx Certificate of Conformity.

assessment in the Ex field: without certification, state-of-the art equipment will remain unavailable. This implies lower than optimum levels of safety both for local industry and for the populations that live around the sites that harbour potential explosion risks.

Major conference in Dubai

The founding members of IECEx were almost exclusively countries in which Ex equipment manufacturing industry was well established. Other countries and regions – the Middle East for example – where a huge number of oil production and processing facilities

are located, started to show a growing interest in IECEx when the System started to offer new services such as the certification of repair and overhaul facilities or of personnel competences.

To help industries in that region get better acquainted with standardization and conformity assessment and find out how they can best benefit from IECEx services, the IEC and IECEx, together with ESMA (Emirates Authority for Standardization and Metrology), and in conjunction with UNECE, are organizing the 2012 IECEx International Conference

in Dubai, United Arab Emirates, on 20-21 March 2012 (see separate article on the event in this issue of *e-tech*).

Reaching out

This year's Workshop for Industrializing Countries, held during the IEC General Meeting in Melbourne, is another opportunity for McManama and other IECEx experts to reach out to new countries. The workshop will focus on the IECEx Certification of Personnel Competence Scheme and will be open to both IEC members and Affiliates.