Standardisation needs you!

Every two months, Dr. Martin Thedens, Chair of IEC TC 31 "Equipment for explosive atmospheres", will offer his perspective on the latest developments in the world of standards.

Standards are of great benefit, both nationally and internationally, because they ensure innovative technologies and increased security and safety for society.

By its very nature, a standard can facilitate fair trade, comparable product quality and smooth processes and guarantees a greater productivity and cost efficiency. Products, services and economic processes are structured and optimised so that they mesh seamlessly, can be developed quickly and made available to the market. These advantages are enhanced by the important factor that standards have an international impact and are accepted across national borders.

Standards are also a product that are sold since their production costs money. The procedures for creating a standard as well as the format and structure of a standard are regulated by ISO and IEC in Directives:

- ISO/IEC Directives, Part 1: "Procedures for the technical work"
- ISO/IEC Directives, Part 2: "Principles and rules for the structure and drafting of ISO and IEC documents"

Each standard is created by an individual group of technical experts. These experts work voluntarily and do not receive any money from the standardisation organisations. The advantages for the experts and their respective companies of participating in standardisation include being able to react to issues at an early stage, making their own products safer, and strengthening the international economy.

Standardisation has also committed to complying with the 17 Sustainable Development Goals (SDGs) of the United Nations. In addition to meeting the goals in the standards themselves, the structures of standardisation itself with the individual groups must also meet these goals. This must also be reflected in the composition of the committees – we need a balanced age and gender structure as well as a good distribution of the different interest groups. These stakeholders must come from the areas of testing bodies, consulting companies, manufacturers, users, inspection bodies, etc. and we are always looking for new and young experts.

There exist many standardisation programs for young experts in IEC National Committees, such as the DKE Next Generation program in Germany. All these national programs are supporting the Young Professional (YP) program of the IEC (https://www.iec.ch/young-professionals), which was launched in 2010. The IEC YP workshop offers participants the opportunity to see the IEC in action and meet technical experts from all over the world in order to better understand why participation at the global level is an essential strategic tool. Special sessions dedicated to YP are organised during the annual General Meetings of the IEC. The coming GM will take place in Edinburgh, UK at the end of October 2024 and the IEC TC 31 is invited to promote our standardisation work to YP..

A new IEC TC 31 standard was published in May 2024, created by IEC SC 31M:

- ISO/IEC 80079-49:2024 Edition 1.0 (2024-05) – Explosive atmospheres - Part 49: Flame arresters - Performance requirements, test methods and limits for use

This standard specifies the requirements for flame arresters that prevent flame transmission when explosive gas-air or vapour-air mixtures are present. It establishes uniform principles for the classification, basic construction and information for use, including the marking of flame arresters, and specifies test methods to verify the safety requirements and determine safe limits of use. This new edition cancels and replaces ISO 16852:2016.

I'm expecting that IEC 60079-14 ED6 (31J/366/FDIS) – Explosive atmospheres - Part 14: Electrical installation design, selection and installation of equipment, including initial inspection, created by SC 31J, will be published soon as it is in the FDIS (Final Draft International Standard) stage as of end of July.

And in 2024 so far, the following documents were published as CDV (Committee Draft for Vote), which is the latest stage for technical comments from the IEC National Committees and the first stage where the document could be voted on:

- IEC 60079-2 ED7 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
- IEC 60079-7 ED6 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
- IEC 60079-18 ED5 Explosive atmospheres - Part 18: Equipment protection by encapsulation "m"
- IEC 60079-19 ED5 Explosive atmospheres - Part 19: Equipment repair, overhaul and reclamation
- IEC/IEEE 60079-30-1 ED2 Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements
- IEC/IEEE 60079-30-2 ED2 Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance

I hope that these documents will be published next year. You can see that IEC TC 31 and its SCs are working continuously on the standards for explosion protection. But as a reminder: your contribution is needed! Please comment on our work via your IEC National Committee. ■