



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.

IEC TC 31's "spring in the Northern Hemisphere" meeting took place in Calgary, Canada this year. For two weeks, around 120 experts from all over the world held their technical meetings in 20 different groups followed by the TC 31 CAG (Chair's Advisory Group).

The CAG is an advisory group to the Chair of TC 31 and functions as its steering group. The members are the TC and SC Officers, all Convenors of TC 31 and its SCs and the IECEx executive. The purpose of the CAG is to assure a timely and efficient completion of TC 31 and its subcommittee's programme of work and to assure a productive performance of the Advisory Groups (AG), Working Groups (WG), Maintenance Teams (MT), and Projects Teams (PT). The CAG is the place where all groups are reporting and are discussing the individual group results and the possible influence of the other groups. Based on the result of the discussions, the TC 31 CAG makes recommendations to the TC 31 Plenary for further approval.

As mentioned in earlier columns, standardisation work is done voluntarily by technical experts from national committees (NC). The following groups are looking for new experts, who want to share their experience and to work on better standards:

- IEC TC 31 JWG29 "Electrostatics" with the task: "Recommendations for requirements for avoiding electrostatic hazards in explosive atmospheres"
- New ad-hoc group "Gas Leak Detection, Early Warning, and Alarming" of IEC

CAG meeting of IEC TC 31

TC 31 MT60079-29 "Gas detection equipment" with the task: "To investigate how to address the work concerning leak detection and alarming"

- IEC TC 31 AG49 "Portable and personal equipment" with the task "To investigate the need for defined specific requirements for portable or personal equipment for use in hazardous areas applying different types of protection, and to make recommendations back to the TC 31 Plenary regarding any necessary needs and actions required."

Please contact your NC to become a member of one of these groups.

IEC 60079-7:2015 (Ed.5) Explosive atmospheres - Part 7: Equipment protection by increased safety "e" specifies the requirements for the design, construction, testing and marking of electrical equipment and Ex Components with type of protection increased safety "e" intended for use in explosive gas atmospheres. The maintenance and the work on Ed.6 started in 2019. A critical topic was the introduction of "ec" Ex Equipment enclosure, an enclosure intended for the incorporation of partially enclosed "ec" Ex Equipment. This type of enclosure was defined as having incomplete or no physical protection provided by an enclosure, other than that necessitated by mechanical construction.

The aim was to facilitate installation by the end user of partially enclosed equipment in "ec" Ex Equipment enclosures which shall be subject to the "Tests of Enclosures" of IEC 60079-0 based on the service temperature range specified by the manufacturer followed by the tests to achieve at least a degree of protection IP54 rating in accordance with IEC 60079-0. This first committee draft for vote (CDV) as of December 2023 was voted down. After removing this concept partly, the second CDV as of July 2024 passed the voting with comments to remove all words about this partially enclosed equipment. This wasn't done and as consequence, the final draft

international standard (FDIS) as of December 2024 was not approved by the national committees (NC). Now, the project to maintain Ed.5 must restart completely. The plan is to use the final text of the FDIS without any information linked to the concept of "ec" Ex Equipment enclosure with partially enclosed "ec" Ex Equipment.

As the concept of "ec" Ex Equipment enclosure with partially enclosed "ec" Ex Equipment needs to be detailed further in IEC 60079-14, it's recommended by the IEC TC 31 CAG that – after publication of IEC 60079-7 Ed.6, hopefully in 2027 – amendments (AMD) will be published for both standards with enclosure requirements in IEC 60079-7 and installation rules in IEC 60079-14.

IEC TS 60079-44:2023 (Ed.1) Explosive atmospheres - Part 44: Personal competence, which is a Technical Specification, is to provide guidance to establish recommended minimum criteria to determine roles, establish expectations of the necessary skills and evidence of competence to assess and manage the competence of personnel conducting work in or associated with hazardous areas. It was proposed by PT60079-44 to keep this document as a Technical Specification but to start an update of this document. The IEC TC 31 CAG recommends that PT60079-44 address the open topics for correction with a corrigendum (COR) and for an update with an amendment (AMD).

The **ad-hoc Group IEC TC 31 ahG 61** "Robotics (including drones)" was created in 2024 to examine the requirements in existing standards and propose additional or different requirements to address the unique requirements for this type of equipment in or above hazardous areas. The ahG to also consider separate guidance on the use of robotic equipment (including drones) in hazardous areas under safe work procedures. The ahG should consider the work of ISO/TC 299 and ISO TC 20/SC 16. The first meeting of ahG61 in Calgary resulted in the following

recommendations of the IEC TC 31 CAG:

1. To continue the work of developing a proposal for a TS on the topic of Robotics and Drones.
2. To have a liaison to ISO TC299 for the purpose of not duplicating efforts, using different terms/references or creating different requirements.
3. To note the work of IEC SC61J related to the safety standard in robotics (project: IEC 60335-2-123 ED1 "Household and similar electrical appliances - Safety - Part 2-123: Particular requirements for robots"). ■

At the beginning of this year's CAG meeting, the members of the group honoured and remembered Paul T. Kelly from the USA, who passed away in January 2025 on his 63rd birthday. Paul served as the Convenor of several IEC TC 31 groups. The IEC TC 31 would like to express our sincere gratitude for Paul's significant contributions and his dedication and hard work which were instrumental in the success of the committee. Paul participated in the work of IEC TC 31 and IECEx for more than 20 years with most of that time in leadership positions. Paul was incredibly well respected in the TC 31 community for both his technical expertise and his convenorship. He had the great ability to effectively communicate not just his own views but also elevate the views of others under his leadership. Paul always had a smile and a kind word for everyone, his passing is a tremendous loss to TC 31, and we extend our deepest condolences to his family, friends, and colleagues during this difficult time. Paul, we will miss you. Paul, I will miss you.

Dr. Martin Thedens is the Chair of IEC TC 31 "Equipment for explosive atmospheres", as well as Head of PTB-Department 3.6 "Explosion Protection in Sensor Technology and Instrumentation", Head of Sector 1 "Explosion Protection and Shooting Devices" of PTB's Conformity Assessment Body, Chair of DKE K241 "Explosion Protected Electrical Equipment" (DE mirror to IEC TC 31), and the Immediate Past Chair of ExNBG (official group of the European Commission for the ATEX Notified Bodies).



HEAD

Emergency escape chemical oxygen breathing device to protect from:

EEBD²⁰

INDUSTRIAL

- Smoke
- Toxic contamination
- Oxygen deficiency

- Chemical Oxygen Rebreather
- Escape and/or Working Rescue
- 10, 15, 20 & 30 minutes duration
- Quick & easy to don; hi vis
- No face fit test required
- Lightweight
- No bulky cylinder
- Clear, visual indicator to check viability
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- EEBD - up to 15 year life
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