BUSINESS PLAN

CENELEC/TC or SC	Secretariat	Date
31	DE	2020-10-27

TC title: Electrical apparatus for potentially explosive atmospheres

A Background

CLC/TC 31 was established in 1974 in order to develop standards for the construction and use of electrical apparatus operated in potentially explosive atmospheres (mixtures of gas, vapours, mists or dusts with air). The European integration required to supersede national legislation and standardization in this field of industry. The “COUNCIL DIRECTIVE of 18 December 1975 on the approximation of the laws of the Member States concerning electrical equipment for use in potentially explosive atmospheres (76/117/EEC)” was the first step to create an internal European market for the free trade of explosion protected electrical equipment by harmonizing the national standards published by BSI, VDE, etc. CLC/TC 31 received the mandate to develop European standards in order to provide detailed technical requirements with the goal to comply with the minimum requirements of the EEC Directive 76/117/EEC and (by this) to provide a set of “Harmonized European Standards” to be published in the Official Journal of European Commission. The Directive 76/117/EEC has been superseded by the New Approach Directive 94/9/EC which has been superseded 2016 by the “New Legislative Framework” directive 2014/34/EU, without any technical changes.

The scope of the CLC/TC 31 is: To standardize requirements for the construction and testing of electrical equipment for potentially explosive atmospheres and the installation, maintenance and repair of such equipment and requirements for the competence of personnel working in the field of explosive atmospheres. Some of the work is allocated to subcommittees and the work of the subcommittees is coordinated by CLC/TC 31.

During the 1990ies the international trade became more and more important for the manufacturers of explosion protected electrical equipment. Therefore, European experts decided to stimulate IEC standardization in IEC/TC 31 by providing the CLC/TC 31 standards as Committee Drafts (CD) for discussion within the international community. Under the umbrella of the IEC-CENELEC Dresden agreement of 1996 it was decided to organize a “Parallel Voting” of the IEC/TC 31 Committee Drafts for Voting (CDV) with the intention to align IEC and CENELEC standards over the time. In the meantime most of the standards of both committees are identical or show only a few differences.

A third version of the Cooperation Agreement was approved in October 2016 and is referred to as the Frankfurt Agreement. Based on this agreement,

- new Work items of CENELEC are offered to IEC;
- parallel voting on draft International Standards is possible;
- European Standards may be Converted into International Standards;

The standardization work of CLC/TC 31 has changed over the last 40 years from technical work to a mainly review work of IEC/TC 31 committee drafts (CLC/TC 31 members are also IEC/TC 31 members). A part of the review process is the acceptance of a drafted Annex ZZ displaying the match of applicable Essential Health and Safety Requirements (ERs) of the EU Directive 2014/34/EU of the reviewed standard, assisting manufacturers to keep overview on the compliance of their products with the Directive. In a similar way an Annex ZY assists manufacturers to comply with the “State of the Art” of their products by classifying changes to the previous edition of a standard as “minor/editorial”, “extension” and “major technical change”. Annex ZY generally follows the information provided in the foreword of the relevant IEC standard.

Because the work of the IEC/TC 31 (SC 31M) also covers non-electrical equipment and other objectives like safety characteristics, CLC/TC 31 closely cooperates with the CEN/TC 305 “Potentially explosive

atmospheres – Explosion Prevention and Protection" in a CEN/CENELEC Mode 4 cooperation and holds meetings together.

Since the implementation of the Dresden Agreement IEC-CENELEC for "Parallel Voting Procedure" the following subcommittees have been declared as "dormant":

CLC/SC 31-1 Installation rules

CLC/SC 31-2 Flameproof enclosures "d"

CLC/SC 31-3 Intrinsically safe apparatus and systems "i"

CLC/SC 31-4 Increased safety "e"

CLC/SC 31-5 Apparatus type of protection "n"

CLC/SC 31-7 Pressurization and other techniques.

The active subcommittees are (producing partly home-grown CENELEC standards):

CLC/SC 31-8 Electrostatic painting and finishing equipment (see own business plan)

CLC/SC 31-9 Electrical apparatus for the detection and measurement of combustible gases to be used in industrial and commercial potentially explosive atmospheres (see own business plan).

CLC/TC 31 established working groups:

WG 09	Reliability of safety-related devices
WG 11	Electrical installations in mines
WG 20	Electrostatics
WG 21	IEC 60079-30-X (trace heating)
WG 22	Editing Group Annex ZZ

Standards developed by CLC/TC 31 are mostly prepared under a Commission's standardisation request to provide one voluntary means of conforming to Essential Requirements of 2014/34/EU (ATEX) EU directive.

34 Countries are P-Members of CLC/TC 31.

B Business Environment

B.1 General

The standards of CLC/TC 31 are used in any industry where explosive atmospheres of gas, vapour, mists and dusts may be present. Typical industries include oil and gas, chemical, plastics, grain, pharmaceutical, shipping, mining and coal industries. The standards developed cover the entire life cycle of equipment from design, manufacture, installation, maintenance and repair. There are also standards dedicated to installations such as those on area classification and inspection. Improved safety in environments where explosive atmospheres may occur is of primary concern, but there is also need for uniform operational practices in these areas to promote free trade of the products used and to assist economic development. Risk management has taken on a greater emphasis in the business environment and is an underlying principle in many OHS regulatory requirements. Insofar is the work of CLC/TC 31 an essential element of EU Directives as 2014/34/EU and 1999/92/EC.

B.2 Market demand

The market demand for CLC/TC 31 standards has been increasing significantly in recent years, with more and more acceptance of these standards throughout the EU. They are used by designers, manufacturers, installers, maintenance and repair personnel, equipment users. Other CENELEC and CEN committees make use of the standards published by CLC/TC 31. The standards published by CLC/TC 31 are widely accepted by different players. They form the basis for the regulatory requirements of the EU legal framework in this field and are used by ATEX Notified Bodies to issue EU Type Examination Certificates, QA Notifications or by manufacturers to issue their EU Declaration of Conformity or EU Attestation of Conformity.

B.3 Trends in technology

The technology used in the horizontal concept standards is fairly mature and stable. Hence, significant development is not required in these areas. However, there is still a need to cater for trends in areas such as electronic devices, fibre optics, manufacturing techniques and materials development. All new technologies are submitted to the technology of the concept standards, which is according to the experience an excellent tool to deal with potential ignition risks.

B.4 Market trends

The market trend to demand standards from CLC/TC 31 is expected to continue and to increase.

B.5 Ecological environment

The CLC/TC 31 standards contribute to safer and more efficient operations in the industries concerned and prevent loss of life and destruction of the environment. Major environmental problems can from explosions that burst containers, for example an explosion on a super tanker or oil platform, and the resulting release of materials into the environment.

B.6 Involvement of societal stakeholders

In accordance with CENELEC's rules for standardisation, CLC/TC 31 proactively works to meet the needs of all stakeholders in order to achieve broad acceptance of the standards for example among regulators, trade unions and insurance companies. A key objective of CLC/TC 31's efforts is to create recognised standards for explosion protection within the EU.

B.7 Involvement of SMEs

Because standardization is a special way of knowledge transfer – particularly to SMEs – it is essential that SMEs are able to participate in the work of this TC. International standardization work (e.g. travelling to overseas meetings) is time-consuming, but the existence of a European group should minimize the effort for SMEs and allow them to give an input to the standardization work directly.

C System approach aspects

The most important relation to other TCs is the CEN/CENELEC Mode 4 cooperation with CEN/TC 305 “Potentially explosive atmospheres – Explosion Prevention and Protection” and CLC/TC 18 “Electrical installations of ships and of mobile and fixed offshore units”. This avoids duplication of work and inconsistencies in dealing with explosion hazards.

D Objectives and strategies (3 to 5 years)

Objective 1: to develop standards (or new editions of standards) corresponding to the actual state of the art

Objective 2: to realise EU Commission’s standardisation requests

Objective 3: to continuously improve the communication culture among the European experts

E Action plan

Objective 1:

Developing standards according to the Frankfurt agreement in cooperation with IEC/TC 31. Close working relationship with CEN/TC 305 and CLC/TC 18.

Objective 2:

Developing standards on the EU Commission’s request and offer these work items to IEC TC31. To manage a process to create Annexes ZZ for all new standards with the intention to be harmonised and Annexes ZY for all new standards.

Objective 3:

To continue with strategic meetings to ensure communication between European member countries. If possible use electronic communication methods (on-line meetings) to involve all members.

F Useful links to CENELEC web site

CLC/TC 31 web site with access to Membership, TC/SC Officers, Scope, Publications, Work programme [password-protected area].

https://www.cenelec.eu/dyn/www/f?p=104:7:221373304502301::::FSP_ORG_ID:1257157