



STRATEGIC BUSINESS PLAN (SBP) – UPDATED SMB/6002/R

IEC/TC 66	SECRETARIAT: UNITED KINGDOM	DATE: OCTOBER 2019
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Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting or sent to the Central Office promptly after its contents have been agreed by the committee.

A. TITLE AND SCOPE OF TC

Title

Safety of measuring, control and laboratory equipment

Scope

To prepare safety standards for test and measurement equipment, industrial-process control equipment, and laboratory equipment wherever they are used.

Such equipment includes:

a) equipment and systems to measure, test, generate, and analyse, simple and complex electromagnetic quantities and equipment that by electromagnetic means measure physical quantities.

Note: Aspects of this equipment other than safety are covered by other technical committees.

b) equipment and systems for industrial-process measurement and control.

Note: Aspects of this equipment other than safety are covered by TC 65 except that SC 65A has a Horizontal Safety Function relating to the functional safety of electrical/electronic/programmable electronic systems and SC 65B is responsible for the functional safety of programmable controllers.

c) laboratory equipment for analysis, handling and preparation of materials.

Note: This equipment includes measuring instruments, systems and their accessories, for preparation, treatment and analysis of materials in the fields of research, medicine, industry and education, and for environmental monitoring.

TC 66 has a Group Safety Function in accordance with IEC Guide 104 for the equipment in categories a) to c) above

New or emerging trends in technology that may impact TC 66:

Cyber-security
Functional Safety
Expanded use of intelligence in products, and the linking of products by information technology & wireless solutions (“Internet of Things”)

These are not likely to affect the scope of TC 66 but will cause reassessment of the standards.

B. MANAGEMENT STRUCTURE OF THE TC

Working Groups:

WG 1 General requirements

WG 2 Safety requirements for electrical measuring and test equipment

Maintenance Teams:

MT 10 Specific Laboratory equipment. Maintenance of IEC 61010-2-051, -061, -081 and -101

MT 13 Revision of IEC 61010-2-020

MT 14 Maintenance of IEC 61010-2-091

MT 15 Maintenance of IEC 61010-2-040

MT 17 Maintenance of IEC 61010-2-010, -011 and -012

MT 18 Maintenance of IEC TS 62850 (future IEC 61010-2-130)

Joint Working Groups:

JWG 13 Safety requirements for industrial-process measurement, control and automation equipment, excluding functional safety. Managed by TC 65. Maintenance of IEC 61010-2-201, -202 and -203.

C. BUSINESS ENVIRONMENT

The market for equipment within the scope of TC 66 and IEC 61010 is large and growing. The equipment is used in a wide range of industry and educational establishments and by users with very different levels of technical knowledge. Manufacturers rely on the IEC 61010 series both to ensure that their products are safe and to be able to demonstrate that they meet national safety regulations, while users rely on them for assurance.

Following aspects of the business environment are likely to influence the work of TC 66:

- electrical, EMC, functional safety and mechanical aspects
- risk of cyber attacks
- products that communicate via the internet, wirelessly or other dedicated networks. Especially Internet of Things (IoT).

The tightening assessment of the legal accuracy of safety standards by the regional or national authorities e.g. European Union is a challenge to IEC standards as well as the aim is to minimise regional or national modifications.

D. MARKET DEMAND

- Customers are manufacturers and users of equipment, test houses, regional and national authorities responsible for safety at work and regional standard developers e.g. the recently established CENELEC mirror committee CLC/TC 66X.
- The level of representation of manufacturers and test houses on TC 66 WGs is satisfactory but the work of the committee would greatly benefit from representation by users of equipment.
- Standards produced by TC 66 have been adopted by the majority of industrialized countries.
- There are no competing standards developed by other organizations.
- It will be necessary to maintain current standards and to prepare new standards as necessary to deal with future equipment developments.
- For most sectors of industry, the level of representation of manufacturers and test houses on TC 66 WG is satisfactory. Although it is recognised the TC 65 deals with process control TC 66 would like to encourage National Committees to nominate more industrial process control experts to come forward as working group experts particularly for WG 1.

E. TRENDS IN TECHNOLOGY AND IN THE MARKET

- Wireless devices and Internet of Things are becoming more common including remote control and display which could cause safety problems.
- With increase digitization software is becoming more relevant in the control of safety functions and hence there is a need for requirements for functional safety.
- Electromagnetic phenomena are becoming sufficiently prevalent to cause safety hazards with the equipment in the scope of TC 66.
- Work place safety regulations are evolving to require greater attention to usability, common user interface, and ergonomics.
- Systems aspects including external communications are becoming more relevant in the control of safety functions and hence there is a need for requirements for functional safety.
- Electricity still is a major factor in our energy-supply. The need to measure and control the supply sources is continuously growing, where the tendency to increase the used voltages is noticeable. The risks related to these increased voltages are growing, where the need for safety requirements will become more important. Also e-mobility is a new trend; here the need for special control and measuring equipment and its safety requirements will increase also.

F. SYSTEMS APPROACH ASPECTS (REFERENCE - AC/33/2013)

The scope of TC 66 is very wide but at the same time so fragmented and dedicated to safety that there is no clear system where TC 66 could belong.

However, especially the measurement and process control equipment are an integral part of the scope of SEG 7, smart manufacturing.

At safety standardization level, TC 66 interacts with the following Technical Committees:

IEC TC 66 as customer:

- TC 44 - Safety of machinery - Electrotechnical aspects
- SC 61C - Safety of refrigeration appliances for household and commercial use
- TC 64 - Electrical installations and protection against electric shock
- SC 65A– (System aspects) - EMC and Functional Safety in particular
- ISO/TC 86 - Refrigeration and air-conditioning
- TC 89 – Fire hazard testing
- TC 96 - Transformers, reactors, power supply units, and combinations thereof
- TC 99 – Insulation co-ordination and system engineering of high voltage electrical power installations above 1,0 kV AC and 1,5 kV DC
- TC 108 - Safety of electronic equipment within the field of audio/video, information technology and communication technology
- TC 109 - Insulation co-ordination for low-voltage equipment

IEC TC 66 as supplier: other system Committees:

- TC13 - Electrical energy measurement and control
- SC 22E - Stabilized power supplies

- TC 38 - Instrument transformers
- TC 44 – Safety of machinery – Electrotechnical aspects
- SC 62A - Common aspects of electrical equipment used in medical practice
- TC 65 - Industrial-process measurement, control and automation
- TC 78 - Live working
- TC 85 - Measuring equipment for electrical and electromagnetic quantities

G. CONFORMITY ASSESSMENT

With reference to clause 33 of Part 2 of the ISO/IEC Directives all publications are in line with the requirements related to conformity assessment aspects.

TC/SC publications are used for IEC Conformity Assessment Systems (IECEE).

Standards include test specifications, reproducible test requirements, and test methods.

There are no special conformity assessment requirements generated by any standards projects.

H. HORIZONTAL ISSUES

TC 66 follows the Guides developed by ACOS and actively participates in the work of ACOS.

Following the Guides keeps the standards in conformity with the applicable horizontal standards.

I. 3-5 YEAR PROJECTED STRATEGIC OBJECTIVES, ACTIONS, TARGET DATES

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS
Update the structure and contents of IEC 61010-1 to reflect the updates in IEC guides and horizontal/basic safety publications	Work on to rewrite IEC 61010-1 4 th Edition.	2024
Deal with functional safety aspects in IEC 61010-1	Work on to rewrite IEC 61010-1 4 th Edition.	2024
Update IEC 61010-2-011 and IEC 61010-2-012 to accommodate alternate natural refrigerants to support the F-gas regulations that are applicable in 2020.	Publish IEC 61010-2-011	2021
	Publish IEC 61010-2-012	2022

Note: The progress on the actions should be reported in the RSMB.

Annex 4

Report on the progress of the strategic objectives in the SBP

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS	STATUS (NOT STARTED, IN PROGRESS, COMPLETE)	PROGRESS REPORT
Update the structure and contents of IEC 61010-1 to reflect the updates in IEC guides and horizontal/basic safety publications	Work on to rewrite IEC 61010-1 4 th Edition.	2024	In progress	Discussions at a preliminary stage
Deal with functional safety aspects in IEC 61010-1	Work on to rewrite IEC 61010-1 4 th Edition.	2024	In progress	Discussions at a preliminary stage
Update IEC 61010-2-011 to accommodate alternate natural refrigerants to support the F-gas regulations that are applicable in 2020.	Publish IEC 61010-2-011	2021	Not started	Work will start shortly
Update IEC 61010-2-012 to accommodate alternate natural refrigerants to support the F-gas regulations that are applicable in 2020.	Publish IEC 61010-2-012	2022	Not started	Work will start shortly