



Administrative Circular

AC/22/2007

2007-06-29

TO ALL NATIONAL COMMITTEES

TO ALL IEC TECHNICAL COMMITTEES AND SUBCOMMITTEES

Dear Sir/Madam,

Subject: IEC GLOBAL RELEVANCE TOOLBOX

The adoption of the WTO (World Trade Organization) Technical Barriers to Trade Agreement (TBT) places an obligation on IEC to ensure that the International Standards it develops, adopts and publishes are globally relevant.

IEC Global Relevance Policy

To fulfil the IEC mission TC/SC members need to be aware that they are developing "state of the art" standards, which must have the widest possible acceptance on the global market.

The attached toolbox provides a variety of tools to permit TCs/SCs to accommodate various needs to ensure that their publications can be used worldwide and provides examples of different cases which can occur when attempting to develop a globally relevant standard and indicates how each of these cases can be integrated. It should be noted that these are broad guidelines only and are by no means necessarily exhaustive. Other solutions agreed by the committee may also provide a satisfactory response.

Yours faithfully,

A. AMIT
General Secretary

Annex

JL



IEC Global Relevance Toolbox – Introduction

The adoption of the WTO (World Trade Organization) Technical Barriers to Trade Agreement (TBT) places an obligation on IEC to ensure that the International Standards it develops, adopts and publishes are globally relevant.

D EFFECTIVENESS AND RELEVANCE

10. In order to serve the interests of the WTO membership in facilitating international trade and preventing unnecessary trade barriers, international standards need to be relevant and to effectively respond to regulatory and market needs, as well as scientific and technological developments in various countries. They should not distort the global market, have adverse effects on fair competition, or stifle innovation and technological development. In addition, they should not give preference to the characteristics or requirements of specific countries or regions when different needs or interests exist in other countries or regions. Whenever possible, international standards should be performance based rather than based on design or descriptive characteristics.

WTO second triennial review of the operation and implementation of the agreement on Technical Barriers to Trade, Annex 4

IEC Global Relevance Policy

To fulfil the IEC mission TC/SC members need to be aware that they are developing "state of the art" standards, which must have the widest possible acceptance on the global market.

To allow products complying with IEC standards to meet the different needs of major segments of the global market, essential differences in requirements may, in well specified cases, be included on an equivalent basis, as either normative requirements or in an informative annex.

A national body requesting that an essential difference be incorporated in an IEC standard must justify its request. An IEC TC/SC deciding not to accept such a request must justify its decision.

Implementation of the above policy will demonstrate the IEC commitment to develop globally relevant standards, and this should be communicated to all countries.

Paraphrased from CB decision 2001 and AC/70/2003

The toolbox provides a variety of tools to permit TC/SCs to accommodate various needs to ensure that their publications can be used worldwide. Publications are globally relevant when they can be used or implemented as broadly as possible by all stakeholders in markets around the world.

The toolbox provides examples of different cases which can occur when attempting to develop a globally relevant standard and indicates how each of these cases can be integrated. It should be noted that these are broad guidelines only and are by no means necessarily exhaustive. Other solutions agreed by the committee may also provide a satisfactory response.

Global relevance

Criteria for the use of the tools

Tool number	Description	When	How
1	Inclusion of text concerning particular conditions existing in certain countries (exceptions) “In some country clauses”	There is no intent or no interest in the near future to standardize various national requirements (quite often they are based on national regulations)	Notes in the foreword or in the text according to ISO/IEC Directives introduced by the NCs concerned at the CDV level. When adopting the IEC standard the relevant NCs may decide to make them normative in their countries See IEC Supplement to ISO/IEC Directives, 5.
2	Informative annex	There is a need to include some important national/regional deviations in the standard as informative elements (same result as tool 1)*	Normal standards making process
3	Integration of regional requirements as parts of the standard on an equivalent basis “EDR process”	An IEC standard does not recognize a significant part of the global market where essential differences exist in some markets, based on technical infrastructure, climate or sizing. This tool may lead to the same results as tools 2, 4 and 5	To propose amendments or revision of existing standards. Or to agree to issue a separate part of a standard. See AC/70/2003.
4	Integration of regional requirements as part of the standard with clear identification of the geographic regions or markets concerned	There is a consensus within the TC/SC to easily include the main different practices while separating the geographic regions or markets concerned	Normal standards making process
5	Integration of regional requirements as part of the standard without identification of the geographic regions or markets concerned	There is a consensus within the TC/SC to deal with the different geographic regional practices on an equal basis, leaving the choice to the users of each country.	Normal standards making process
6	Development of particular standards dedicated to technologies used by specific Industries	There is a clear consensus within the TC/SC to deal with the different technologies on an equal basis.	Normal standards making process

* SMB accepted that all national deviations of a permanent nature may be gathered in a single informative annex. The difference between the two tools concerns the process. In case of tool 2 there is a formal vote on the annex which does not take place with tool 1.

Examples of the application of existing tools

Global relevance policy was approved by IEC in 2003 and the EDR procedure was implemented in 2004
This is only a sampling of TC/SCs using the various tools

Tool	TC/SC	Examples of IEC Standards ¹⁾	PROCESS	Comments
1 "In some country" clauses In the text or in the foreword	TC 61 TC 72 TC 23 TC 44 TC 64 SC 17B	IEC 60335 series IEC 60730-2-8 (2000) IEC 60730-1(1986) IEC 60898-1(2002) IEC 60204-1(1965) IEC 60204-11(2000) IEC 60204-32(1998) IEC 60364-4-41(1981) IEC 60364-7 series IEC 60947-1(1988) IEC 60947-2 (1989) IEC 60947-3 (1990) IEC 60947- 4-2 (1995) IEC 60947-4-3 (1999) IEC 60947-6-2 (1992)	According to the Directives (requests from NCs not discussed by the TC)	It is agreed that these clauses are only for information and not subject to vote. These clauses may become normative in the relevant countries once the IEC standard is adopted as a National Standard
2 Informative annex ²⁾	SC 23F SC 17D SC 32A	IEC 60998-1(1990) IEC 61439-1 IEC 60071-1(1976)	Normal approval process	Annex B gives relationship between conductors of cross- sectional areas in mm ² and the sizes as used in North America Annex M will indicate temperature rise limits applicable in USA Annex B gives values of rated insulation levels for 1kV < U _m

Tool	TC/SC	Examples of IEC Standards ¹⁾	PROCESS	Comments
				≤ 245 kV for highest voltages for equipment <i>Um</i> not standardized by IEC based on current practice in some countries
3 EDR process	SC 23H SC 23F SC 23E TC 86	IEC 62472/CDV IEC 60998-1/amd IEC 61541 IEC 61753-1	First submitted as a pure EDR which would have amended an existing standard The SC decided to convert it into a standalone standard addressing devices with arcuate contacts installed in a number of countries having an electrical infrastructure recognized by IEC that are using voltage and current systems associated with Series II devices. EDR submitted but no consensus found by vote. It was agreed to discuss the subject matter at the next SC 23F meeting A possible EDR proposal was discussed with USA but finally submitted as a NP. The US NP was considered as a valuable input for WG 2 to prepare a standalone standard on SRCDs. Finland proposed an EDR to allow a temperature requirement more stringent than the existing standard specifies. The EDR request modification to IEC 61753-1 to allow the lower	The CDV has been rejected (15 against; 8 in favour) SC23H decided in Berlin to set up a new ahg to review the comments made on the CDV (meeting in March 2007) SC 23 F decided in Berlin to introduce the US request as input for the next maintenance cycle of IEC 60998-1 No draft available. WG2 is working on the subject No further action at this time. SC 86B has decided to deal with the matter at the next Maintenance cycle.

Tool	TC/SC	Examples of IEC Standards ¹⁾	PROCESS	Comments
	SC 23B TC 9 TC 20	IEC 60884-1 amd/CD IEC 61133 IEC 6YYYY	temperature to be changed from -40 °C to -45 °C to meet the requirements in severely cold regions. A CDV is expected by October 2006 Published 2006-10 See Doc 20/836/INF (an EDR proposal is one of the options)	Informative annex B gives regulatory requirements for European community as per AC/135/2002 Approaches other than EDR have been adopted.
4	TC 8 TC 32	IEC 60038 (1975, 1983) IEC 60282-1(1968)	Normal approval process	Table III contains two series of voltages, within the range of 1 kV to 35 kV, with the second series identified as "North American practice". Table 4 is based on practice in Europe. Table 5 is based on practice in the U.S.A. and Canada.
5	TC 34 TC 34 SC 17B	IEC 60061 series IEC 61347-2-3(2000) IEC 60947-1(1988)	Normal approval process	Contains standard sheets for lamps applicable to different regions 3 different tests are given in order to cover different situations for Europe and North America Tables 1, 5 and 9 have been written to include the two major wire sizing methods used in the different regions of

Tool	TC/SC	Examples of IEC Standards ¹⁾	PROCESS	Comments
	SC 23C	IEC 60906-1(1986) IEC 60906-2(1992)		the world Part 1 is dedicated to electrical infrastructure 16A – 250v and part 2 is dedicated to 15A – 125V
	SC 23E	IEC 60884-1(1987) IEC 61008-1(1990) IEC 61009-1(1991) IEC 61540(1997) IEC 61543(1995)		Cover all electrical infrastructure systems
	SC 23H	IEC 60309-2(1981)		Series I and Series II address different voltage and current ratings available for industrial plugs
	SC 32C	IEC 60127-2(1989) IEC 60127-3(1988)		Sheet 4 is country specific Sheets 1 and 2 are dedicated to US style fuse-links
	SC 32C	IEC 60691(1980)		This standard was revised with the aim of harmonizing IEC 60691 with the US National Standard UL 1020, 5th edition: Thermal Cutoffs for Use in Electrical Appliances and Components
	TC 55	IEC 60317 series		Several parts are based on practices in Asia or in USA
	SC 32B	IEC 60269-1(1968)		5 different sections are provided, each of which is dedicated to a particular style of fuse. There is no indication of any country or region preference for one or more of

Tool	TC/SC	Examples of IEC Standards ¹⁾	PROCESS	Comments
				the styles. It is left to the market place and the user to determine which is the correct choice.
6 Development of particular standards dedicated to technologies used by specific Industry	TC 5	IEC 60953-1(1990) IEC 60953-2(1990)	Normal approval process	Dedicated to acceptance tests of steam turbines where it was agreed that the industry needs could not be satisfied with only one method.

Note 1 – The date between brackets is that of the first edition of the IEC standard

Note 2 – This does not include the EDR procedure where it is stated that specifications linked to national regulations should be put into an informative annex

Examples of standards making use of the tools described in the toolbox are given below.

The following differences exist in some countries:

- 6.2: Protection by obstacles and placing out of reach is not applicable (Finland).

Figure 1 – In some countries clauses (IEC 60204-11, Foreword)

Table B.1 – Wire size, mm² versus AWG

Cross-sectional area mm ²	Wire size AWG
0,2	24
0,34	22
0,5	20
0,75	18
1,0	–
1,5	16
2,5	14
4	12
6	10
10	8
16	6
25	4
–	3
35	2

Figure 2 – Informative annex (IEC 60998-1, Annex B)



Table 3 – A.C. three-phase systems having a nominal voltage above 1 kV and not exceeding 35 kV and related equipment*

Two series of highest voltages for equipment are given below, one for 50 Hz and 60 Hz systems (Series I), the other for 60 Hz systems (Series II – North American practice). It is recommended that only one of the series should be used in any one country.

It is also recommended that only one of the two series of nominal voltages given for Series I should be used in any one country.

Series I			Series II	
Highest voltage for equipment kV	Nominal system voltage kV		Highest voltage for equipment kV	Nominal system voltage kV
3,6 ¹⁾	3,3 ¹⁾	3 ¹⁾	4,40 ¹⁾	4,16 ¹⁾
7,2 ¹⁾	6,6 ¹⁾	6 ¹⁾	–	–
12	11	10	–	–
–	–	–	13,2 ²⁾	12,47 ²⁾
–	–	–	13,97 ²⁾	13,2 ²⁾
–	–	–	14,52 ¹⁾	13,8 ¹⁾
(17,5)	–	(15)	–	–
24	22	20	–	–
–	–	–	26,4 ²⁾	24,94 ²⁾
36 ³⁾	33 ³⁾	–	–	–
–	–	–	36,5 ²⁾	34,5 ²⁾
40,5 ³⁾	–	35 ³⁾	–	–

* These systems are generally three-wire systems unless otherwise indicated. The values indicated are voltages between phases.
The values indicated in parentheses should be considered as non-preferred values. It is recommended that these values should not be used for new systems to be constructed in future.

NOTE 1 It is recommended that in any one country the ratio between two adjacent nominal voltages should be not less than two.

NOTE 2 In a normal system of Series I, the highest voltage and the lowest voltage do not differ by more than approximately $\pm 10\%$ from the nominal voltage of the system. In a normal system of Series II, the highest voltage does not differ by more than $+5\%$ and the lowest voltage by more than -10% from the nominal voltage of the system.

1) These values should not be used for public distribution systems.
2) These systems are generally four-wire systems.
3) The unification of these values is under consideration.

Figure 3 – Integration of regional requirements as part of the standard with clear identification of the geographical regions or markets concerned (IEC 60038, Table 3)

IEC 60906-1 {Ed.1.0}	IEC system of plugs and socket-outlets for household and similar purposes - Part 1: Plugs and socket-outlets 16 A 250 V a.c.
IEC 60906-2 {Ed.2.0}	IEC system of plugs and socket-outlets for household and similar purposes - Part 2: Plugs and socket-outlets 15 A 125 V a.c.

Figure 4 – Integration of regional requirements as part of the standard without identification of the regions concerned (IEC 60906-1 and -2)

IEC 60953-1 {Ed.1.0}	Rules for steam turbine thermal acceptance tests. Part 1: Method A - High accuracy for large condensing steam turbines
IEC 60953-2 {Ed.1.0}	Rules for steam turbine thermal acceptance tests. Part 2: Method B - Wide range of accuracy for various types and sizes of turbines

Figure 5 – Development of particular standards dedicated to technologies used by specific industry (IEC 60953-1 and -2)