Title of TC

Safety of electronic equipment within the field of audio/video, information technology and communication technology

A Background

Former SC 61A (established in 1967) was transformed into a separate technical committee, TC 74, in November 1972, to cover data processing equipment and office machines. Former SC 12B (established in 1947) was transformed into a separate technical committee, TC 92, in 1990, to cover electronic equipment for household and similar use.

The merging of technologies for these product types resulted in the formation of the new technical committee, TC 108, in 2001, which now covers the scopes of the two former committees, TC 74 and TC 92.

B Business Environment

B.1 General

IEC 60065 and IEC 60950 series are among the most widely used of all IEC standards. They form the basis for many national and regional standards around the world and as a minimum are used and referenced by most countries of the world. In addition, IEC 60990 serves as a basic safety publication providing relevant information regarding methods of measurement of touch current and protective conductor current.

As also indicated in B.5, the managements of both TC 100 and TC 108 have jointly decided to move the responsibility of all non-safety related standards under the scope of TC 108 to TC 100.

B.2 Market demand

Advances in technology and the need for interpretation by users of standards as new designs are considered by manufacturers or encountered in conformity assessment activities may require updating of these safety standards. TC 108 has good representation and participation from each of these groups to provide the necessary balance to the deliberations. Each of the participants is also a user of these types of equipment covered so we also have the benefit of input from this point of view. The standards being developed by TC 108 also take into account the safety needs for children, the elderly and the disabled where necessary.
B.3 Trends in technology

The merging of the functions of information technology products with those of the home and professional entertainment products created a need to consider the harmonization of the requirements for safety in IEC 60950-1 and IEC 60065 that resulted in technical committee TC 108 being formed. TC 108 has taken on all of the responsibilities of both TC 74 and TC 92.

B.4 Market trends

Advances in technology has made A/V products converge more and more with those of ICT equipment. Technology in this area is changing with a constantly increasing speed. Therefore TC 108 developed a safety standard that is more technology independent than current typical safety standards by creating a "hazard based" standard, IEC 62368-1, which will expedite getting safe, innovative technologies into the market place. IEC 62368-1 combines the scopes of both IEC 60065 and IEC 60950-1 and is intended to replace them over time.

B.5 Ecological environment

TC 108 is cognizant of the serious nature of concerns for the environment. It has been adopting a more proactive role for considering new requirements and their possible reduced negative impacts on the environment, while preserving the product safety properties. Life-cycle aspects of the equipment, related to the protection of the environment are continually being considered in the light of IEC Guide 109 (Environmental aspects - Inclusion in electrotechnical product standards).

Because of an overlap in the scopes of TC 100 and TC 108 related to environmental considerations, other than taking into account environmental aspects in the development of TC 108 safety standards as specified in Guide 109, the preparation of specific standards, guidelines or recommendations related to environmental matters, such as energy efficiency measurement methods or environmentally conscious design criteria, has been transferred to TC 100. The transfer of the responsibilities for relevant environmental standards developed by TC 108 to TC 100 has been successfully completed.

C System approach aspects

TC 108 is, in terms of the IEC system approach to standardization, a customer committee of the following IEC component committees:

- TC 20 Electric cables
- SC 21A Batteries
- SC 23E Circuit-breakers and similar equipment for household use
- SC 23F Connecting devices
- SC 23G Appliance couplers
- SC 23J Switches for appliances
- SC 32C Miniature fuses
- TC 33 Power capacitors
- SC 37A Low-voltage surge protective devices
- TC 40 Capacitors and resistors for electronic equipment
SC 47E  Discrete semiconductor devices
TC 72  Automatic controls for household use
TC 94  All-or-nothing electrical relays
TC 96  Transformers, reactors, power supply units and similar products for low voltage up to 1 000 V

The customers of TC 108 standards and the products designed and manufactured to TC 108 standards are Regulatory Authorities responsible for safety and consumers who purchase the products. Consequently to ensure that Regulatory Authorities responsible for safety have confidence in using TC 108 standards in their regulations and to ensure the safety of consumers who use the products designed and manufactured to TC 108 standards, all components used in these products must be such that they do not compromise the ability of the product to meet the requirements of the product standard when incorporated as specified by the product manufacturer.

D Objectives and strategies (3 to 5 years)

TC 108 looks to the future with the following objectives:

1. Continue to develop and maintain standards necessary for manufacturers and the safety of the users of AV/ICT equipment, national authorities responsible for such equipment safety and bodies responsible for certifying such equipment. Monitor market and technology trends and develop the necessary requirements.

2. Engage with component committees identified under the system approach aspect to ensure that component standard safety requirements are compatible with the safety requirements in the standards maintained by TC 108 and do not compromise the safety of the end product and hence lead to TC 108 customers retaining confidence in the standards maintained by TC 108.

3. Make sure that our work is developed in accordance with the principles of IEC Guides 104, 108 and 117, as well as ISO/IEC Guides 50, 51 and 71. TC 108 also takes into account safety pilot and safety group functions of other TCs and SCs such as TC 64, TC 70, TC 76, TC 89, TC 96 and TC 109, as well as the work of other horizontal committees.

4. TC 108 will continuously consider beneficial liaisons with other product related TCs in the light of the standards development and harmonization efforts, such as those that have been found necessary to develop safety requirements for modular data centers.

E Action plan

For the items outlined in D above, TC 108 will:

For D1:

- Maintain IEC 62368-1 and IEC TR 62368-2.
- Maintain the viability of IEC 60065 and IEC 60950-1 during the transition to IEC 62368-1, followed by a decision on the future need of IEC 60065 and IEC 60950-1.
- Review IEC 60950-21, IEC 60950-22 and IEC 60950-23 and other documents to bring them in line, where necessary, with the hazard based approach used in IEC 62368-1 during the transition period.
- Following the recommendation of the SMB, take steps to make IEC TS 62441, covering external accidental ignition by a candle flame, into an International Standard.
• IEC TR 62102 covers telecommunication interfaces and uses the IEC 60950-1 approach. The document will be updated to cover the approach used to define the different hazard levels used in IEC 62368-1 and how these hazard levels can be implemented in the existing document.

• IEC TS 62367 covers telecommunication matters, however it is felt that this document may no longer be needed. TC108 will consider the withdrawal of the document. The management will send out a formal question to relevant TCs and NCs as to whether the document is still needed or whether it should be deleted once it is determined whether some of the content may be applicable to IEC 62368-1.

• Continue to identify new technical areas requiring attention, and establish appropriate working groups for such work, if necessary.

• Nurture relationships with organizations having an A-liaison with TC 108. Establish A-liaisons with international organizations where this would be beneficial to TC 108 or its working groups. Reports of such liaison activities will be updated at TC 108 plenary meetings and appropriate action taken.

For D2:

• In collaboration with TC 17 and TC 22, develop guidelines for the incorporation of power distribution, uninterruptible power supply and load transfer switch subassemblies into the design of ICT equipment by 2018.

• Continue to cooperate with SC 21A in the development of adequate requirements for lithium batteries. This remains a critical area requiring close cooperation with them to assure that their requirements for lithium batteries can become acceptable in TC 108 products and thereby maintain the expected safety levels of our products.

For D3:

• IEC TC108 is a member of ACOS and actively participates to keep the Guides up-to-date.

• IEC TC108 engages with other TCs to reach a consensus whenever a potential issue is identified.

For D4:

• IEC TC108 will maintain a list of its active liaisons and review the list at least during each plenary meeting.

• Based on the responses to the enquiry sent out by TC108 to other relevant technical committees, TC108 will develop safety requirements for modular data centers within 5 years and keep the other relevant TCs informed of the progress and request their support where necessary.

F Useful links to IEC web site

IEC/TC 108 dashboard giving access to Membership, TC/SC Officers, Scope, Liaisons, WG/MT/PT structure, Publications issued and Work and Maintenance Programmes and similar information for SCs, if any.

Name or signature of the secretary

Kevin Ravo