Title of TC
SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

A Background
At its Tel-Aviv meeting in October 1966, a decision was made by the Committee of Action to divide the work of TC59. As a result, TC61 was established. Subsequently, at TC61’s first meeting in February 1967 in New York City, U.S.A. it was agreed that the scope of this new technical committee would be “to prepare safety requirements for electrical appliances for household and similar purposes”. The scope was modified at TC61’s second meeting in London, September 1968, to include office machines. This task was eventually transferred to TC74.

The first General Requirements publication, 60335-1, was published in 1970, the same year that the first Part 2, 60335-2-2 – Particular requirements for vacuum cleaners, was published. Since then, in addition to several publications that have been developed and published by TC61 subcommittees, TC61 has added approximately 60 Part 2’s to its scope of work. To keep with the fast pace of technology, the committee published a Third Edition of IEC 60335-1 in 1990, resulting in realignment of all the existing Part 2’s. The fourth edition of IEC 60335-1 was published in May 2001. This resulted in the realignment of all the existing Part 2’s by December 2002.

B Business Environment
B.1 General
External: The work of TC61 continues to proceed at a rapid pace due to the growing world wide use of international safety standards, the increased interest in certification and the increase in the number of appliances falling under the scope of IEC TC61. The value of international trade in electrical appliances is measured in billions of US$. The regulatory environment applied to electrical appliances varies from country to country, but manufacturers usually have to contend with either a performance based regulatory environment or a pre-market intervention regulatory environment. In both cases, standards are vital for the appliance industry to manage the risk associated with electricity and appliances.

The standards produced by TC 61 are used for certification purposes in the IECEE scheme, and the certificates issued are used to obtain or cover market approval requirements internationally.

Internal: TC61 aims to produce and maintain international standards relating to the safety of household and similar appliances in a manner that is timely, efficient and which keeps pace with modern technology.
The standards produced will fulfill the needs of certification bodies, consumers, manufacturers and national authorities responsible for safety. The requirements are written so as to facilitate international trade in electrical appliances and to minimise the need for national differences.

**B.2 Market demand**

The customers for TC61 standards include consumers, manufacturers of appliances, certification and testing laboratories, retailers and national (local) inspection authorities. These groups, except for retailers, are actively represented on the committee. At present there is no difficulty in obtaining the participation of the important groups. The standards produced by this committee have attained wide use internationally at both the regional and national levels. However, in the United States, national standards prevail, although harmonization efforts are underway.

The electrical appliance industry is a mature industry and as such the coverage of the current standards produced by TC 61 and its subcommittees is sufficient for most products. However, the standards produced require frequent amendment in order to respond to safety problems encountered in the field and to allow manufacturers to gain certification for new features on existing appliance types. New standards are developed in response to an increase in international trade in new appliance types. Usually an existing regional or national standard is available to form the basis of the international standard. It is for these reasons and in order not to impede development that standardization concerning safety of appliances is generally a reactive process rather than a proactive process.

Many aspects relating to the safety of children when they use an appliance or come into contact with it are already covered by the 60335 series due to application of ISO/IEC guide 50. However, due to the unpredictable nature of child behaviour it is inevitable that some aspects can only be introduced on a reactive basis and will be part 2 specific.

Health/hygiene requirements are generally only a safety issue in relation to appliances involved in the commercial distribution, storage and use of foodstuffs, appliances used to clean up hazardous dust and appliances connected to the water mains. These aspects are covered by the existing standards. Performance issues relating to appliances in general and in particular to the commercial distribution and storage of foodstuffs and domestic storage of foodstuffs are covered by IEC standards produced by other committees such as TC 59 and ISO standards.

**B.3 Trends in technology**

The use of electronic circuits (including programmable elements) to provide a safety related function and the effects of electromagnetic phenomena on such circuits will significantly impact the design and construction of future appliances. In addition, manufacturers are using the telecommunications network to enable remote control of appliances and remote servicing of appliances that incorporate programmed electronic circuits – this aspect of appliance servicing and usage is expected to grow. These aspects have a significant impact in the development of appliance safety.

**B.4 Market trends**

The standards produced by TC 61 and its subcommittees are used in many countries to show compliance with the specific country legal requirements promulgated to govern safety of electrical equipment. This use of TC 61 standards is continuing to expand and applies whether a performance based or a pre-market intervention based regulatory regime exists. Consequently ensuring the global relevance of TC 61 standards continues to be of prime importance. Use of TC 61 standards reduces the need for manufacturers to carry out a risk analysis relating to appliance safety since such an analysis is covered by the safety requirements in the TC 61 standards.

**B.5 Ecological environment**
Requirements covering the impact of appliances on the ecological environment are not within the scope of TC 61. However, safety requirements are written so as to take into account the industry's need to use environmentally friendly materials. Other environmental aspects relating to appliances are within the scope of other committees such as SC 77A, CISPR/F, TC 59, TC 106 and TC 111.

C System approach aspects

TC 61 and its subcommittees are, in terms of the IEC system approach to standardization, customer committee of the follow IEC component committees.

TC20 Electric cables

SC 21A Secondary cells and batteries containing alkaline or other non-acid electrolytes

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 34B Lamp caps and holders

TC 35 Primary cells and batteries

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

SC 77A/WG8 Low frequency phenomena Description of the electromagnetic environment associated with the disturbances present on electricity supply networks

TC 94 All-or-nothing electrical relays

TC96 Transformers, reactors, power supply units and similar products for low voltage up to 1100 V

The customers of TC 61 standards and the products designed and manufactured to TC 61 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 61 standards in their regulations and to ensure the safety of consumers who use the products designed and manufactured to TC 61 standards, all components used in appliances must be such that they do not compromise the ability of the appliance to meet the requirements of the appliance standard when incorporated as specified by the appliance manufacturer.

D Objectives and strategies (3 to 5 years)

TC 61 looks to the future with the following objectives:

1) Continue to maintain and develop standards necessary for manufacturers and the safety of users of electrical appliances, national authorities responsible for appliance safety and bodies responsible for certifying appliance safety.
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 IEC 60335-1 and do not compromise the safety of the end product appliance and hence lead to TC 61 customers losing confidence in the IEC 60335-1 series of standards.

3) Nurture relationships with organizations having an A-liaison with TC 61 or its subcommittees. Establish A-liaisons with international organizations where this would be beneficial to TC 61 or its subcommittees.

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

E Action plan

Objective D-1

- Complete defined standards work in the time frames defined, for the part 1 standard and all related part 2 standards.
- On an annual basis, identify new product types requiring new standard development or existing standard maintenance.
- On an annual basis, review the current structure to consider the SMB guidance to keep the organization as lean as possible and to take advantage of all available work structures SC/WG/PT/MT for effective operation.

Objective D-2

- At each meeting, review the liaison memberships from/to IEC TC 61.
- On an annual basis, identify other committees, including IEC, ISO, and other external organizations undertaking work relevant to TC 61's mission and determine if liaison, either formal or informal, is needed.

Objective D-3

- Continuously consider market trends and impacts, and identify areas for improvement/development.
- Review other activities in IEC and ISO and consider the impact on TC 61. Determine where TC 61 input/expertise will be needed.
- Encourage participation of new market participants, especially those from emerging economies and developing countries.
- Develop and add security requirements for appliances containing programmable electronic circuits and having data connection possibilities via TC61/MT23
- Continue to develop guidance for addressing functional safety using programmable electronic circuits.
- Review component committee standards and drafts for change. Comment on the drafts when necessary to ensure their compatibility with TC 61 safety requirements.
- Consider the effects of smart grid/parallel grid operation applications on the safety of the appliance via TC 61/MT23.

Objective D-4
Encourage NCs to provide input on a continuous basis

**Useful links to IEC web site**

[TC 61 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

*Mrs S Bird*