Zeitschrift: Bulletin des Schweizerischen Elektrotechnischen Vereins, des Verbandes Schweizerischer Elektrizitätsunternehmen = Bulletin de l'Association suisse des électriciens, de l'Association des entreprises électriques suisses

Herausgeber: Schweizerischer Elektrotechnischer Verein ; Verband Schweizerischer Elektrizitätsunternehmen

Band: 72 (1981)

Heft: 11

Artikel: The significance of electrotechnical standardization

Autor: Heyner, J.

DOI: https://doi.org/10.5169/seals-905113

The Significance of Electrotechnical Standardization

By J. Heyner

006.44:621.3;

1 The international organizations for electrotechnical standardization

The significance of international electrotechnical standardization can be seen from the fact that three organizations are active in this field, namely:

IEC	International Electrotechnical Commission
CEE	Commission Internationale de Certification de Conformité de l'Equipment Electrique
CENELEC	European Committee for Electrotechnical Standardization

IEC, the oldest of these organizations, will be celebrating its 75th anniversary this year. Another article is dealing more specifically with this organization[1]).

The second-oldest of these electrotechnical standardizing bodies is the CEE, or to be more accurate, its predecessor, the IFK (Installationsfragen-Kommission). This organization was founded in 1926, and Switzerland joined it two years later in 1928. Today the CEE comprises the standardization and testing bodies of 22 European countries and of Israel as well as 8 countries who have joined as observers, e.g. U.S.A., South Africa, Australia and Japan. In the first 10 years of its activity, the CEE worked out standards for the testing of electrical material, and this mainly in the low voltage field. In the seventies the CEE's field of activity was re-established so as to eliminate any overlapping work with the IEC in the sector of standardization. According to the new and present-day objectives, the CEE no longer concerns itself with questions of standardization, but organizes acknowledgement tests and makes certain that test certificates from member organizations are recognized in an as large as possible geographical area.

CENELEC is the youngest organization. Its predecessors, CENEL and CENELCOM, were founded in 1958 and comprised respectively the countries of EFTA and the EEC. As more European countries joined the EEC, it was decided in 1972 to combine CENEL and CENELCOM into one organization, namely CENELEC. Is major task is the overcoming of trade barriers which exist between member countries as a result of different national standards. The IEC documents shall mostly be used as a basis for this harmonizing work. However, although this directive exists, it is unfortunate that there have been situations and still are situations where both CENELEC and IEC are engaged in identical tasks for the establishment of electrotechnical standards. In spite of these difficulties it can be stated that today the three independent international electrotechnical standardization commissions (IEC, CEE and CENELEC) have gone a long way towards an agreed division of activities. It will still, however, remain the task of national committees to make certain that the division of activities within the committees of the international organizations is adhered to.

[1]) C.J. Stanford: 75 Years of Linking the World of Electricity, Bull. SEV/VSE 72(1981)11, p. 539...543.

2 The Swiss Electrotechnical Committee (CES) and the major aspect of its electrotechnical standardizing activity

To the extent that the SEV (Swiss Electrotechnical Association) is commissioned with standardization matters, in compliance with its statuts and the regulations of the Swiss authorities, the CES is that body within the SEV responsible for electrotechnical standardization. In addition to this, the CES also takes an active part with the international electrotechnical standards organizations as the Swiss National Committee.

The expenses of CES and SEV for the electrotechnical standardization activities exceed 2 mio Sfr. per annum. In addition to this, some 1000 engineers are made available by the electrical industry and utility companies on a honorary basis who use part of their working time for the establishment of standards. If this expense is also taken into consideration, then the estimation that more than 10 mio Sfr. are spent per year in Switzerland for electrotechnical standardizations would not appear to be an exaggeration.

In view of these high costs it is self-evident that CES attaches great importance to an objective and rational completion of its work. Quite clearly, CES places major importance in its work with participation for the establishment of those international standards which specify safety requirements for electrical equipment.

The immediate beneficiaries of these 'safety standards' are the consumers who can safely rely on the fact that electrotechnical devices available on the market can be operated without hazard. These standards are also of extreme importance to the manufacturer of electrotechnical products in that they define those requirements which his products must fulfil in order to correspond to the actual state of the art. With an ever sharpening of the legal situation with regard to product liability, these are requirements which are gaining considerably in importance. Incidentally, safety thinking is not new in Switzerland. In the 19th century, at the beginning of electricity, great importance has already been placed on the safety of electrotechnical products, and this without compulsion from the State.

Author's address
Dr. *J. Heyner*, President of CES, Sprecher & Schuh AG, CH-5001 Aarau.