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Interconnection of Information Technology Equipment
Home Electronic Systems**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE No. 79: ALARM SYSTEMS

Provisional Strategic Policy Statement (SPS) for the interim period 2008-2009

Background

This text is a provisional TC 79 SPS reviewed and agreed during the Technical Committee meeting held in Paris on June 9th and 10th 2008. This work aims to prepare a finalised proposal to be submitted to TC79 during the next meeting scheduled in June 2009.

During the TC meeting in Paris it was highlighted that the SPS will be further reviewed within the "Chairman Advisory ad-hoc Group"¹ and in order to take into account available comments and papers from NCs.

Further it was agreed to circulate the proposal modified during the meeting as an INF paper in order to inform National Committees as early as possible.

Annex mentioned

¹ See Document 79/241/RM

Title of TC
Alarm and electronic security systems

A. Background

IEC/TC79 met nine times since it was set up in May 1979 under the Chairmanship of Mr DODGE from USA, the Netherlands was in charge of the secretariat. The first meeting was held in June 1980 in Stockholm and the last meeting was called in Paris in January 2000. During this period of time the title was "alarm systems". IEC TC79 was dormant from June 2001 to September 2007 (see CA decision 109/2 2001/06 on the « stand-by status » for TC 79 and SMB/3561/INF paper 2007/09 when TC79 was reactivated).

Before June 2001, difficulties for drafting proposal were mentioned in many occasions due to lack of experts participation within the working groups. Several working groups were disbanded during the June 1994 meeting in Brussels and no working group met in 2000.

A new title and scope are proposed in 2008.

Scope

To prepare international standards for the protection of persons, areas and properties against fraudulent actions having the purpose to enter in a place or to take or to use something without permission.

The scope includes, but is not limited to equipment and systems, either used by ordinary persons or by trained people in the following residential and non residential applications:

- Intruder and hold-up alarm systems,
- Access control systems,
- CCTVs systems
- Fire detection and fire alarm system*
- Social alarm systems,
- Alarm transmission systems,
- Remote receiving and/or surveillance centres,
- Combined and/or integrated systems even including fire alarm systems*.

These systems can be used for providing a local or remote alarm, they can be used for calling private guards, social assistance, fire brigade or police force. They can be used for recording and transmission of dated or undated information, sounds, pictures of places and people for surveillance purposes.

The standards cover:

_terminology,

- technical characteristics regarding performance criteria, reliable operation, installation, maintenance;

- testing for detection, monitoring, recording, triggering an alarm and transmission to a remote centre including procedures and protocols for communication.

Electrical safety, environmental conditions and behaviour of alarm systems regarding electromagnetic compatibility are also considered with reference to the appropriate standards (e.g.

Guide ISO/IEC 51).

* ISO/TC21/SC3 is in charge of the production of standards for "Fire detection and alarm systems"

Working groups :

In 2008, further to a Canadian NP it was decided to start a PT on access control.

TC79 published 23 standards.

Membership :

22 P-Members : BE CA CH CN CZ DE DK FI FR GB HR IT JP KR NL NO PT RS RU SE TR US

12 O-Members : AU BG ES GR HU IE IN PL RO SG UA ZA

Liaisons :

The work of TC 79 shall be conducted so as to ensure that liaisons are maintained with :

Cenelec, ISO/TC 21/SC 3, ISO/TC22, ISO/IEC SAG (Strategy Group on Security)

Note: Proposal: to stop liaison with ISO/TC22, and to remove "embarked car alarm system" from the scope

IEC/TC79 refers to standards prepared by ITU-T and ITU-R.

Note : A liaison with CLC/TC79 follows the IEC/CLC co-operation agreement.

B. Environment

B.1 Business environment and technology trade

Alarm systems are widely known and used as anti-theft, hold-up, fire detection and evacuation alarm systems since decades. However, due to progresses in technologies they became popular in the field of access control, CCTVs and surveillance systems including social alarm systems. They may be used for the surveillance of buildings or areas around buildings.

Access control and surveillance such as CCTV is a consequence of an increasing need for more safety in places, either in buildings or around buildings, as accommodation buildings (for example homes and dwellings, hotels, hospitals, elderly people homes, barracks etc...), or other buildings either residential or not residential (for example, offices, shopping centres, schools and universities, administrations and banks, entertainment and tourism, infrastructures, transports and industry etc...).

Social alarm is a consequence of an ageing population asking for remote assistance in case of emergency while at home. It can be a great help for young, elderly or disabled people.

Although alarm systems are based on sophisticated electronic design they are rather different from other electronic systems because they must be able to work reliably in case of an emergency situation. In addition to that, intrusion and hold-up systems must be designed in order to trigger the alarm if someone decides to interfere with the system (tamper protection).

The recent growth of IT (information technology) has a strong influence on the development of alarm systems. It is easier, cheaper and faster than before to record and transmit alarm signals, information or data, including sounds, pictures and video through communication systems from the premises to an alarm receiving centre. Customers of such systems are not only waiting for a reliable system but they want an appropriate answer and/or service that immediately follows the alarm.

This has several consequences for alarm and surveillance systems.

First, a modern alarm and surveillance system must be able to transmit the alarm through a reliable communication system. The communication have been made through the PSTN during many years

however nowadays other networks such as internet, cable television distribution systems or radio communication systems including cellular telephone or other available systems may be used. A consequence is that there is a need for standardised transmitting procedures and communicating protocols between the components (mainly the control panel) installed within the place under surveillance and the alarm receiving centre.

Then, the alarm receiving and/or surveillance centre should not only receive the message or information but should also be able to verify and record the alarm, monitor the communication and control the local equipment. There is therefore a demand for remote modification of parameters within the alarm and/or surveillance systems which can only be done under certain conditions. For social alarms, a direct dialogue between the alarm receiving centre and the user is often necessary.

Finally, the necessary equipment installed in the premises or places under surveillance should not only be easy to use but should provide an appropriate answer to the user. Greater computer analysis with high recording capacity and automatic verification is necessary to avoid unwanted alarms.

B.2 Market demand

It is clear from the above statement that there is a demand for reliable detection systems and transmission systems. Government departments, public services, users, manufacturers, certification bodies and laboratories etc... should benefit from standards dealing with access control, CCTV and communication and protocols. Standard communication procedures between the local alarm system and the alarm receiving centre are also necessary.

EMC requirements in the field of alarm systems are extremely important from the point of view of reliability. Modern electronic designs are more and more sensitive to interference due to other equipment. For example, some components used in alarm systems may behave as antennas and could either influence their environment or be influenced by electromagnetic fields. This is a second area where standards should be helpful.

Increasing numbers of batteries and other components, which should be recycled, are used in alarm systems. Users are waiting for safe products and a clean environment, regulations and laws are increasing in severity with regard to pollution. It would be helpful if standards for alarm systems could anticipate this trend.

Finally it is generally agreed that one of the fastest growing sectors of alarm systems are in the area of access control, CCTV and social alarm. This could be considered as a basis for work within the IEC/TC79.

Note: CENELEC has produced several documents covering these different areas and applications on intrusion, audio-video door apparatus, access control, CCTV, social alarms integrated alarm systems, transmission and alarm centres.

C. Work programme and future work

- Access control system work covering equipment, system design and services.
- CCTV system instructions for new technology as IP-networked Megapixel cameras, enclosures & Positioning Systems and domes with digital video recorders. Also there is common demand for planning and installation instructions with security demands and for instructions which respect personal privacy according to laws and regulations.
- Common maintenance plans for individual security systems
- Integrated security systems for effective share of alarm information in visual format and easy remote use to demanded secure places.

D. Maintenance**D.1 Maintenance plan**

According to the work program (from the TC 79 2000 meeting) , the maintenance plan is the following:

- Alarm transmission systems: to circulate alarm transmission already published standards produced by CENELEC to IEC members directly under CDV procedure. WG5 will be the maintenance team for those documents.
- Intruder alarm systems: already published standards produced by CENELEC will be used for this purpose. To be sent under CDV procedure.
- Environment: already published standard produced by CENELEC will be used for this purpose. To be sent under CDV procedure.

In case of negative votes during the voting procedures, NCs will be requested to appoint experts.

D.2 Maintenance cycle

On one hand, the length of the maintenance cycle is considered carefully in order to check if the standards are still applicable to new technologies. On the other hand, the revision shall be avoided if not absolutely necessary because industry is not willing to invest on products based on standards whose stability is unknown.

For alarm systems, a ten years maintenance cycle is considered as a maximum :

- Maintenance cycle for standards dealing with systems: 10 years;
- Maintenance cycle for standards dealing with equipment: 7 years;
- Maintenance cycle for standards dealing with installation: 5 years.

Name or signature of the secretary
JM. Barrière