



LETTER from ILPA to CENELEC

Paris, 20 October 2009

Referring to the issue of ESE lightning protection system Standards which arose in CENELEC (134 BT, TC81X), the International Lightning Protection Association (ILPA) has decided to contact the CENELEC Technical Directorate in order to inform it about the concern of ILPA members.

ILPA members are extremely surprised by the repeated attacks from some members of CLC TC81X, together with the ICLP and the Yahoo Lightning Protection Group, intending to systematically question the validity of the E.S.E. national standards.

Some key facts support this affirmation:

1. ICLP sent a letter to CENELEC dated 13.07.2009, which was entitled "Information about the withdrawal of the national standards ESE May 2009". This letter, which was also published on the ICLP webpage, was announcing the withdrawal of the French national standard by CENELEC following the meeting of the 134BT on April 2009. This statement was refuted by CENELEC on 22.06.2009. Later on, ICLP partially withdrew its content, but the title itself remained on the website.
2. ICLP sent further letters to CENELEC dated 18.09.2009 and 05.10.2009 insisting, with threatening terms, on their target to obtain the withdrawal of the French national standard.
3. These actions are spread on the Internet and within the Lightning protection Yahoo Group by its moderator, Mr. Abdul Mousa, consultant, who is co-author of anti ESE misinformation, together with other ICLP and TC81X members . A clear evidence of this is the June 13, 2009 posted letter called "ESE Standards withdrawn" from the Lightning Protection Yahoo Group in which Mr. Mousa refers to ICLP announcement and affirms the following:

i. "...administrative procedures of the European Community have been successfully used to force the withdrawal of ESE standards in France, Spain, and any other European country which adopted such a standard."

Despite the numerous letters that have been sent by our Association to the moderator of the Yahoo Group since June 2009 in order to delete from his forum the untrue information coming from ICLP website, the messages published by Mr. Mousa are still unchanged.

4. During the last I.E.C. TC 81 Milano meeting (April 2009), most of the discussion was dedicated to the consideration of two sentences which are clearly against ESE:
 - i. ***"Only protection measures considered in this standard are proved to be effective."***

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“Any other claimed protection system shall comply in full with this standard.”

Mr. Michael Cason, from the I.E.C. Central Office, had to close the endless and tough discussion by explaining that these sentences were discriminatory and contrary to the IEC rules, and that they constituted a barrier to trade and technological development. These two sentences were erased of the draft standard (see IEC TC81 Milano meeting minutes, document 81/326/RM, point 6, section a, decisions 1 and 2); however, the following sentence was introduced in the minutes of the Milano meeting:

- i. ***“ TC81 is aware of development and research on other technologies in the field of lightning protection, but until these technologies are accepted by the International Scientific Community (such as CIGRE), it is considered opinion of TC81 that the principles and methods within IEC 62305 are adopted”.***

This sentence has in fact been used again within CENELEC against ESE as the CLC/TC81X Chairman has introduced it in the minutes of 02.09.2009 TC81X meeting in Brussels.

Although the Chairman’s intention is clear –to create obstacles to the use of ESE lightning protection-, the sentence itself shows the obvious recognition that ESE is a lightning technology other than the ones (mesh system, stretched wires and simple rods also called “passive systems”) specified in EN 62305. It therefore confirms once again that there is no conflict between national ESE standards and EN 62305.

Faced with these attacks, ILPA would like to stress the following:

- Following CENELEC rules, the ESE national standards of CENELEC countries have been aligned with EN 62305 for common requirements.
- CENELEC Internal regulations – Part 2 - clearly defines what is a conflicting national standard. According to point 2.13 of the I.R., a conflicting national standard is a “national standard with the same scope as an EN including requirements which conflict with the requirements of the EN”. As explained by the corresponding National Committees , E.S.E. standards have different scopes from EN 62305, since their object is “the protection against direct lightning strikes, **using ESE air terminals**, of common structures...”. Therefore, according to CENELEC internal regulations the procedures for conflicting standards are not applicable to this case. (For more explanation on the scope of EN 62305 and ESE national standards see Annex 1 and 2)
- It has been intended to associate the EN 62305 series to a general lightning protection standard but this standard obviously does not include ESE lightning protection systems. This

has been confirmed by the statement of the Chairman of TC81X during the last meeting in Brussels on 02.09.09: “EN 62305 excludes the ESE system because it is not scientifically proven.”

- Both ESE national standards and EN 62305 can coexist in the future, as done in the past, until the necessary consensus to reach a CENELEC deliverable for ESE can be possible.

Last but not least, it must be pointed out that the experience of the ESE technology is impressive and fully positive: since the middle of the 80's more than 350 000 units have been installed worldwide, which means more than 3 millions accumulated years of experience. It is very important to keep in mind that, nowadays, empirical experience is the only scientific way to validate any lightning protection system, including the system described in EN 62305. These 350 000 ESE lightning protection systems have been installed all over the world according to the existing national standards. A distribution map of these installations can be found on <http://www.intlpa.org/ilpa.html>

ILPA members hope that the attacks against the ESE national standards are only led by a wrong analysis of CENELEC rules and of the ESE standards themselves. These standards are aimed to coexist with other standards. Besides, the European Commission confirmed in the letter of Vice-President Verheugen dated 19.03.2009 , in relation to restrictions on the use of E.S.E. lightning conductors in Slovenia, that no obstacles to the commercialisation of products shall be implemented by EU Member States in order to ensure the free movement of goods in the internal market¹.

We want to thank you very much for your attention. Please do not hesitate to contact us if any further information or clarification is needed.

Yours sincerely,



Arnaud Lefort
ILPA President



Carlos Pomar
ILPA General Secretary

¹ Articles 28 and 29 of the EC Treaty prohibits between Member States quantitative restrictions on imports and exports, and all measures having equivalent effect.



Annex 1

TWO STANDARDS WITH DIFFERENT SCOPES

CENELEC Internal Regulations (2.13) establish that conflicting national standards are the ones with the same scope as an EN.

Annex 2 gives the scopes and relevant chapters of both standards.

E.S.E. standards have different scopes from EN 62305, since their object is “the protection against direct lightning strikes, **using ESE air terminals**, of common structures...”. The use of ESE air terminals is not considered in the air termination systems nor anywhere in EN 62 305 series.

Therefore, according to CENELEC internal regulations the procedures for conflicting standards are not applicable to this case. In addition, open areas are not specifically addressed in EN 62 305 series as these standards concentrate only on structures.

Besides, E.S.E. standards have a different protection conception and requirements from EN 62 305. The whole protection system in these standards is inherent to the use of ESE air terminals since they give, in relation with other competing objects, a preferred interception point with its corresponding conduction path and dissipation in the ground.

Therefore, the E.S.E. standard gives indications, specific to these systems, such as where to place the air terminal and minimal height over other objects. The standard also includes a laboratory test for ESE air terminals evaluation. The rest of elements, which are necessary to complement the standard, were or have recently been aligned with EN 62305. In addition, requirements of the ESE standards do not conflict with the requirements of the EN and they require even higher security measures for the installations since their last edition.

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Annex 2

EN 62305-1:

1 Scope

This part of IEC 62305 provides the general principles to be followed in the protection against lightning of

- structures including their installations and contents as well as persons,
- services connected to a structure.

The following cases are outside the scope of this standard:

- railway systems;
- vehicles, ships, aircraft, offshore installations;
- underground high pressure pipelines;
- pipe, power and telecommunication lines not connected to a structure.

NOTE Usually these systems are under special regulations made by various specific authorities.

and EN 62305-3:

1 Scope

This part of IEC 62305 provides the requirements for protection of a structure against physical damage by means of a lightning protection system (LPS), and for protection against injury to living beings due to touch and step voltages in the vicinity of an LPS (see IEC 62305-1).

5.2 Air-termination systems

5.2.1 General

The probability of structure penetration by a lightning current is considerably decreased by the presence of a properly designed air-termination system.

Air-termination systems can be composed of any combination of the following elements:

- rods (including free-standing masts);
- catenary wires;
- meshed conductors.

To conform to this standard, all types of air-termination systems shall be positioned in accordance with 5.2.2, 5.2.3 and Annex A.

NFC 17102:

1.1.1 Domaine d'application

La présente norme traite de la protection par paratonnerre à dispositif d'amorçage contre les coups de foudre directs des structures courantes de hauteur inférieure à 60 m, et des zones ouvertes (aires de stockage, aires de détente, ...). Elle inclut la protection contre les conséquences électriques dues à l'écoulement du courant de foudre dans le système de protection contre la foudre.

NOTES :

- Elle ne traite pas de la protection des équipements et des installations électriques contre les surtensions d'origine atmosphérique transmises par les réseaux.
- D'autres normes décrivent la protection contre la foudre par tiges simples, fils tendus et conducteurs maillés.

Certaines administrations, services publics ou exploitants d'installations à risques peuvent s'être dotés de réglementations spécifiques.