

Reactions towards Mr Abdul Mousa statements.

M Abdul Mousa, based in Canada, is working for a utility named BC Hydro. He is the co-moderator of a discussion group on Internet. According to Mr Rick O'Keefe, founder and co-moderator of the group, it is dedicated to lightning safety. Instead, it seems to be used as a tribune to lobby against the spread of non conventional air terminals, including active systems and ESE systems.

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1- Mr MOUSA, the new ESE prosecutor

Firstly, we need to present Mr Mousa recent positions and comments for those who are not members of the discussion group: Mr Mousa is opposing ... everything since the Benjamin Franklin rod invention more than 200 years ago. He is one of the more active opponents to ESE systems and considers that the rejection of the NFPA 781 draft standard in 1997 was a "victory". He is also opposed to "active systems" and he recently wrote (January 30, 2003):

"...Our concern about the situation in Australia is justified as the existence of a French standard for ESE (Early Streamer Emission) lightning rods was similarly used to attack the standards authorities in other nations, including NFPA..."

This opposition is not based on Mr Mousa own research or publications. He is just combining a few papers published in various publications or conferences during the last decade against ESE systems : University of Manchester tests in High Voltage Laboratory, Mr Rison experimentation in New Mexico, ICLP statement sent to the NFPA during the review of the draft standard NFPA 78 , Mr Hartono's pictures from Malaysia... These papers are already well-known and we had multiples opportunities to answer.

Very recently (Feb 4, 2003), Mr Mousa wrote a new paper entitled "The standard that never was". His position is very simple and based on two major considerations:

1- The French Standard organization has been "abused" by ESE manufacturers and published a Standard (NFC 17- 102) without precautions or consensus:

"The «standard» turned out to be a document cooked up by the manufacturers of ESE devices in France, rather than a consensus document that has been approved by a national group having wide representation including learned societies."

Mr Didier GEORGES, Managing Director of the UTE (Union Technique de l'Electricité), French Standard body, promptly answered this type of defamatory statement:

"I can't accept your false allegations about UTE and the whole French Standardisation System, that clearly shows your dishonesty.

I will send in few days a complete answer explaining the way AFNOR and UTE work.

UTE, French member of IEC, is the electrical Standardisation Body of AFNOR. I can't accept that UTE's neutrality should be questioned.

Didier GEORGE

Directeur Général de l'UTE »

2- Mr Mousa considers that all related parties (foreign standard committees, end users....) are victims of "vendors that continue to use the discredited standard to promote their gadgets":

According to the author, members of standard committees in Spain, Romania, Portugal or Argentina, end users, consultants and engineers specifying ESE systems have all been "abused" for years !

But on the other hand, a recent market survey has been conducted by IPSOS in France (2002) towards 476 industrial sites. 97% of the ESE technology users interviewed have declared that they are "satisfied" or "rather satisfied" of their ESE air terminal. Shall we consider that these end-users are so stupid that they are satisfied to purchase inefficient and unreliable "gadgets" despite their several years of satisfactory use of ESE? Shall we extend this comment to our 50 000 customers throughout the world protecting their premises with our system for the last 15 years ?

Our company accept to take part of a discussion as long as it is based on scientific or technical facts and comments. We accept the opposition of some scientists and we are always open to discuss with them, sharing our experience and our data collected on our installations as well as during our test campaigns. But Mr Mousa comments are just oriented and part of a political campaign rather than a technical discussion. As an example, his Feb 4, 2003 starts with the following sentence:

"This news item will surprise, or even shock, most of our readers.

Hopefully, it will also delight the majority."

This comment does not require any additional comment: Mr Mousa is taking the leading position of an anti ESE political campaign, in any case he is intending to entertain a fair and instructive scientific debate.

2- Our position towards the ESE debate

Besides the nauseating political campaign, I would like to explain again our position towards the technical opposition to ESE air terminals:

The “opposition” papers are usually based on the following comment: the ESE efficiency is not enough scientifically proven, and therefore the Franklin rods are staying the only recommended LPS.

As far as the efficiency of our ESE air terminal is concerned, INDELEC has been conducting test campaigns not only in High Voltage laboratories but also in real lightning conditions on 3 continents during the last 10 years. These results have been presented in international conferences (IWLP 1999, ICLP 2000, Foudre 2001 ...) and they are available on requirement.

Besides these test campaigns, we have also a long experience installing its systems in more than 80 countries since the mid-eighties. These air terminals are sometimes installed for years in very high keraunic level sites and areas. No casualties, no damages, no complaint have been reported.

According to our contradictors, these results, these references are not (and may never be !!) meeting their expectations to prove the efficiency of our ESE air terminal.

But on the other hand, the same authors are not taking the same precautions to assume that the Franklin systems are efficient, based on their wide acceptance and installation references for more than 200 years.

“Traditional lightning protection is based on over 250 years of empirical observations of the effectiveness of the systems and over 100 years of scientific research into lightning and lightning protection” according to Mr William Rison.

Basically, ESE efficiency needs to be proven but in the same time authors assume that conventional air terminal are working perfectly without need of proof. But Mr Hartono’s pictures for example are clearly showing that many buildings in Kuala Lumpur have been struck by lightning even though a Faraday cage was installed :

For the first time in 1999, an official NFPA report underlined the lack of scientific or technical background behind the “natural” acceptance of the conventional systems:

“It appears to the Panel that the NFPA 780 document does not meet the NFPA criteria for a standard since the recommended lightning protection system has never been scientifically or technically validated and the Franklin rod air terminals have not been validated in field tests under thunderstorm conditions”.

1999 – Third Party Independent Evaluation Panel on Early Streamer Emission Lightning Protection Technology.

Conclusion

As manufacturer of the ESE air terminal Prevelectron since 1986, we are open to the discussion. We are taking the scientists concerns into account to conduct our research programs, to keep on improving our system. These programs are based on wide international cooperation (Japanese, French, Canadian, Brazilian partners for the two on-going research projects) and these test sites are widely open for visits of scientists.

In our mind, the debate must be technical and scientific. Under Mr Mousa leadership, the LightningProtection discussion group turns to be a clearly anti ESE oriented web site. The comments are not anymore technical, but only intending to discredit ESE image.

Mr Mousa papers turned full of rash statements and defamatory comments. His partition of “good people (ESE opponents) and “fraudulent people” (ESE vendors) is completely useless and a waste of time.

It will surely not help to improve our knowledge of the lightning phenomenon. But most probably Mr Mousa himself do not really care about that as long as the ESE air terminals are discredited.

In the meantime, we follow our test campaigns and researches on the lightning phenomenon and the air terminals compared efficiency. We wish to open a real scientific debate. We feel this is worth spending our time and energy rather than wasting them answering clearly oriented literature such as Mr Mousa pamphlets.

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