



# fisuel INFO

FISUEL INFORMATION LETTER

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International Federation for the Safety of Electricity Users

## Editorial

### Prevent risks! Analyse disasters!

*As our society advance into the future, electrical facilities and equipments have been becoming more diverse, complicated and of large scale. Consequently electrical fire and shock accidents have also been increasing.*

*To prevent such accidents, a systematic management was required on a national level. So an inspection system on various electrical facilities, following the legal standards set by the government was put in operation.*

*Therefore Korea Electrical Safety Corporation (KESCO) was established in 1974, to inspect and check-up electrical facilities, investigate, research and advertise electrical safety and for urgent restorations when disaster strikes.*

*KESCO is the only professional electrical safety organization in Korea. The head office is located in Seoul and there are over 65 business establishments, besides research institute and education institute as attached organizations throughout Korea. The whole of it representing more than 2 800 staff, and a budget of more than 150 USD millions.*

*KESCO has professional personnel investigating causes of electrical accidents more scientifically and accurately, in result providing effective countermeasures to reduce electrical accidents. KESCO is striving to provide more safe and convenient ways for the public to use electricity.*

*We will do our utmost effort to play our part in achieving the common goal of electrical safety, by cooperating with the electrical safety organizations around the world.*

*And in this respect, KESCO is very pleased of having joined FISUEL; KESCO is ready to take an active part in it, in order to contribute to the promotion of this Federation – with its members – and of electrical safety.*

*At last, we do hope that there will be a strong interest and implication from all these organizations, which gathered in FISUEL, are longing for a completely secured use of electricity.*

*Thank you.*

**Ph. D. Song In-Hoe**  
President Directeur Général  
Korean Electrical Safety Corporation

Ph. D. SONG IN-HOE



## NEW ITEMS

### Two new admissions at FISUEL in May 2005:

#### ■ ACTIVE MEMBER

- SIEIN, Niger, Sécurité des Installations Electriques Intérieures au Niger  
Tel. (+227) 73 85 36 - Fax. (+227) 73 57 29

Safety of Electrical Installations in Niger, sole authorised organisation operating over the entire country, created by ministerial order on 24 March 1992 following a previous order requiring the power distributor to demand certification of conformity for any new installation before its connection to the mains supply; SIEIN is a non-profit initiative, but it must remain self-financing.

#### ■ ASSOCIATE MEMBER

- QUALIFELEC, France, Association Technique et Professionnelle de Qualification des Entreprises de l'Equipement Electrique  
Tel. (+33) 1 53 06 65 20 - Fax. (+33) 1 53 06 65 21 – infos@qualifelec.fr - www.qualifelec.fr

An organisation set up to qualify and classify electrical contractors in France. Set up as an association in 1955 under the supervisory authority of the Ministry of Infrastructure. QUALIFELEC is a decision-making support for developers and prime contractors, providing them with lists of qualified companies, arranged by field of activity and number of employees.

Bringing the number of Active Members of FISUEL up to 14 as well as for Associate Members with a total of 28.



QUALIFELEC





# INTERNATIONAL FORUM

## International Forum of Electrical Safety (Paris, December 9<sup>th</sup> 2004) :

Held at Paris Nord Villepinte on 9 December 2004, this Forum brought together more than 100 participants representing nearly 30 different countries.

Taken as a whole, the talks provided various different angles on the subject of electrical safety.

This was no doubt due to the variety of countries represented by the speakers: Belgium, Italy, Senegal, Canada, Korea, Australia and South Africa.

It was once again apparent that while standards and regulations may vary to some extent from one country or continent to another, the safety of electricity users remains the unifying element because it is shared by all.



Angelo BAGGINI, Italy



José TO



Jean-Louis ROBERT, Canada

## Inauguration of CONSUELEC (Gabon, April 26<sup>th</sup> 2005) :

In Libreville on 26 April, under the chairmanship of Philippe Ossoucah, Director Energy and Hydraulic Resources, and in front of a large audience, the Gabonese Confederation for the Safety of Electricity Users (CONSUELEC) was officially launched.

CONSUELEC - which brings together representatives of power distributors, power station and network constructors, wholesalers, electrical contractors, electrical inspection firms and consumers - has set itself the following objectives:

- reduce the number of accidents on installations,
- increase awareness of the need to comply with prevailing standards and regulations,
- prepare and implement any study likely to contribute to safety - from the generating station through to the end user,
- promote the notion of quality,
- fight against counterfeiting.

Looking ahead to the enforcement of the "certificate of standards compliance", which, from January 2006, will be required by the power distributor before installations can be connected (or allocated to new occupants), CONSUELEC intends to lead a powerful information and awareness campaign among the population.

We should also remember that CONSUELEC, chaired by Edmond Okemvele, is the result of a partnership begun with CONSUEL several years ago, and of a co-operation agreement set up in August 2003.

The President of CONSUEL, Philippe André, who unfortunately could not attend, was represented at Libreville, by Michel Faure, Director General of CONSUEL.

Finally, Philippe Ossoucah and Edmond Okemvele, aware that this was only the "first step", announced that CONSUELEC wished to become a member of FISUEL in order to benefit from the experience of its counterparts in other countries.



Beulab MISROLE, South Africa



## Spain : evolution in the field of electrical inspections system

In Spain, the current electrotechnic regulation (Real Decreto 842/2002) provides, in relation with verifications and inspections in new/existents domestic electrical installations, that:

### Verifications :

All low-tension electrical installations must be verified at the completion of the electrical installation by electrical contractors (self-inspection) but before connection to the network, according to the AENOR rule: UNE 20.460.6.61.

The energy distributor, before connecting the installation to the network, could develop all verifications it considers necessary, but all costs will be assumed by it.

### Inspections :

Inspections will be:

- **Initial inspections:** before the connection of electrical installations to the network. Both new installations and existents installations with relevant changes or enlargements.



# RUN OF ELECTRICAL SAFETY



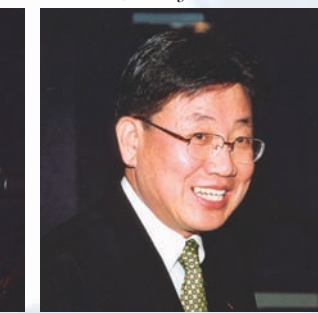
Maz GOMEZ, Portugal



Benoît DÔME, International



Adiouma DIONE, Senegal



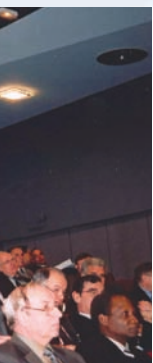
Ph. D. SONG IN-HOE, Korea



Bertrand FABRE, France



Philippe ANDRE, France



Phil BUCKLE, Great Britain



Peter Glynn, Australia



- **New installations:** in buildings don't require initial inspections, but if those buildings have garage with more than 25 places or external lighting with power up to 5 KW, that installations (garage and lighting) have to be inspected by an homologated inspection body according the norm Real Decreto 2200/1995, who will deliver an inspection certificate with the installation qualification (favourable, conditioned or negative). The selection of the inspection company and the inspections costs correspond to the owner (customer).

- **Periodic inspections:** Buildings with installed power up to 100 KW will have periodical inspections every 10 years, developed by an inspection body.

- **Note:** main difference between verifications and inspections is the agent who has to realize the work.



Romualdo ARIAS, FENIE

## Korea Electrical Safety Corporation



### Foundation

The Korea Electrical Safety Corporation (KESCO), established in 1974, re-established in 1990, is the special organization covering the whole electrical safety activities nation-wide.

And it was designated in 1995 as an organization responsible for disaster management under Disaster Management Act.

The main function of KESCO is to protect lives and properties from electrical disasters, it is responsible for inspection, checkups of electrical facilities, education, research and publicity related to electrical safety.

### Major function

#### Inspection and Checkups of Electrical Facilities:

- **Electricity Business:** Thermal Power, Hydraulic, Combined thermal power, Internal-combustion, Wind, Solar and



Nuclear power plant and Substation, Power transmission lines.

- « **Private Use** »: Newly installed, enlarged or modified electrical equipment, including construction plan-approved (reported) power generation facilities and receiving facilities.
- « **General Use** »: Electrical facilities in general housing and small scale buildings with a voltage of 600V or less and a capacity of less than 75kW.

**Electrical safety management agency of electrical facilities for private use.**

**Publicity and Instruction of Electrical Safety.**

**Safety Diagnosis of Electrical Facilities and Product Safety Certification.**

**Support Governmental Safety Management and Research of Electrical Accident.**

## Inspections of low voltages facilities

Periodic checkups (including « pre-checkups »)

**Scope:**

- Electrical facilities in general housing and small scale buildings with a voltage of 600V or less and a capacity of less than 75kW.
- Electrical facilities with a capacity of less than 100kW that use nighttimes electrical power and engage in the manufacturing business.
- Less than 20kW for electrical facilities in multiple-use facilities such as entertainment spots and markets and manufacturing or storage places for dangerous objects.

**Periodic checkups terms:**

- Once a year: Dangerous facilities, public facilities, cultural assets, streetlights, traffic signals and industrial facilities.

- Once every two years: Education facilities (elementary, secondary) and restaurants.
- Once every three years: Independent home, joint housing, etc.

**During inspections, minor non-conformities are rectified by the inspectors.**

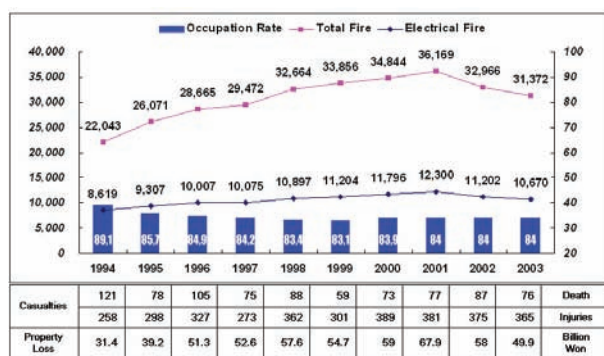
## Pre-Checkups of Electrical Facilities for General Use

**Scope:**

Educational, lighting, signals and industrial.

**Target:** Check if electrical equipment's installation with electrical equipment technology standards.

## Some statistics



34 % of fires have an electrical origin.

25 % of those fires take place in residential sector, 12 % in industry and shops (with a great percentage in vehicles, 15 %).

Among them: short circuits are at the origin of 65 %, overloads of 9 % and leakage currents of 6 %.

Short circuits happen mainly in services, industry, hotels, ...

72 casualties (mainly in transport and distribution lines), 692 injuries.

## Dates for your diary

### ■ November 2005

- Forum on Electrical Safety in Casablanca, Morocco (to confirm)



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