



fisuel INFO

FISUEL INFORMATION LETTER

International Federation for the Safety of Electricity Users

Edito



Philippe André
Honorary President
and Founder of FISUEL

Long live FISUEL!

Because thanks to FISUEL, you are going to know all about the major development in France aimed at ensuring the protection of persons and goods with regard to photovoltaic systems.

In a few days from now a decree will be signed by our Prime Minister to make it compulsory from 1st January 2010 to provide a CONSUEL compliance certificate for any "production unit" (photovoltaic or other) with a capacity below 250 kVA when a request is made to connect it to the public electricity grid.

The number of photovoltaic systems connected to an electricity grid is constantly increasing, and it is essential to remind professionals that everything must be done to ensure that they are safe.

The FISUEL's duty is to inform all member states of important new measures taken by individual members, so that all may benefit.

Bravo FISUEL, because this is only one among many examples of our Federation's mission, and we take advantage of this opportunity to wish you all a very happy New Year in 2010.

NEWS



Memberships



■ Active member

- **NICEIC Group** is a wholly owned subsidiary of the Electrical Safety Council acting as the electrical contracting industry's independent voluntary regulatory body for electrical installation safety matters : maintaining and publishing a register of approved electrical contractors and domestic installers. NICEIC also provides a range of services that support the certification of electrical products, personnel and managing systems.
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■ Associate member



- The **Energy Commission of Malaysia**, established under the Energy Commission Act 2001 in 1 May 2001 regulates the electricity and gas supply industry to ensure adequate, safe and reliable supply at reasonable prices as well as to promote efficiency and to protect consumers. The Commission is responsible to protect any person from dangers arising from generation, production, transmission, distribution, supply and use of electricity. Our safety regulatory framework provides for the licensing of electrical installation, the control of electrical installation, plant and equipment as well as the control of "competent persons" and electrical contractors with respect to matters relating to the safety of persons. Our acts and regulations could be viewed and downloaded from our website www.st.gov.my.

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SEP, Poland



At the invitation of the President of SEP (Association of Electric Poles), Jerzy Barglik, Consuel and FISUEL sent representatives to attend the 1st Congress of Polish Electricians, held in Warsaw from 2 to 4 September 2009, to celebrate the 90th anniversary of the creation of the Association.

The event was held at the University of Technology and Warsaw attracted about 500 participants.



On September 2, Philippe André after having briefly presented Consuel and Fisuel made a comprehensive presentation of the French Observatory of the Electrical Safety, underlining the interest of such a body for a country like Poland.

Janusz Borowski, SEP
and Michel Prudhomme, Consuel



On September 4 a workshop was devoted to relations between SEP and Fisuel/Consuel under the leadership of Mr. Janusz Borowski, a member of the Executive Committee of SEP, and Janusz Okolski, Director, Office of Quality Testing (BBJ). Michel Prudhomme made a presentation on Fisuel, and Marc Maslowski on Consuel.

Some questions and answers followed these presentations, with two main issues:

- Inspection's methodology,
- Implementation of the system.

After the workshop, at the initiative of President Barglik, a letter of intent of cooperation between Consuel, SEP, the Labour Department and the Fire Service, for the setting up of a Polish Electrical Safety Observatory, was signed by representatives of SEP and Consuel. This body would be an initiative, intended to convince Polish authorities of the merits of establishing a regulatory system for electrical installations.

European Commission, DG Enterprise



DG Enterprise is planning to get help from Fisuel for a study on surveying electrical installations in dwellings in Europe, President Arias Romualdo met in Brussels, October 8, Mrs. Jour-Schroeder, Head of Unit in this Directorate General, to obtain more information on this possible future cooperation.

International Forum of Electrical Safety, Athens, 6 November



EAOT Fisuel, with the partnership of ELOT held its annual International Forum of Electrical Safety, chaired by Romualdo Arias (Fisuel/Fenie) and Ioannis Matsas (ELOT), the 6 November in Athens. More than 60 participants from 10 countries have been attending.

On this occasion, after having reminded the minimum requirements of the safety of electricity users, the different contributors, from both Fisuel and ELOT, showed by their respective presentations the utmost necessity of the verification of the compliance with the Standards of electrical installations before their connection with the network - **as well as the several ways to achieve it, such as the one used in Portugal and the one used in Ireland** -, and the dangers possibly occurring from non compliant with specifications products.

The importance of creation of a National Electrical Safety Data Collection Centre, such as the one existing in France has also been noted: a precious tool for maintaining the updating of the national regulations.

During the conclusions, all participants agreed once more on the importance of this issue, shared by all countries, and on the interest of pursuing the corresponding exchanges; in this respect Fisuel confirmed its availability to help the countries wishing to improve their level of safety of electricity users and, more generally speaking, its will to go on promoting electrical Standardisation. 🌐



On the photo, from the left to the right : Charalampos Konstantopoulos, Vice President of POSEH, Pantelis Tsokanis, General Secretary of POSEH, Efsthathios Darras, President of POSEH, Senan Mc Grath (RECI Ireland)



EMA Singapore, regulating safety of consumer's electrical installations in Singapore

The Energy Market Authority of Singapore (EMA) is a statutory board under the Ministry of Trade and Industry. The EMA's main functions are to:

- promote effective competition in the energy market,
- ensure a reliable and secure energy supply,
- develop a dynamic energy sector.

Through its work, the EMA seeks to forge a progressive energy landscape for sustained growth.

EMA's Roles on Electrical Safety

As the regulator of the electricity industry, EMA safeguards the interests of consumers with regard to the quality of electricity supply and protects the public from dangers arising from the use of electricity. In this regard, EMA formulates, implements and enforces regulatory requirements, policies, relevant codes of practice and processes related to the quality of electricity supply and the safe use of electricity.

Regulatory framework governing the safe use of electricity

Electrical safety in Singapore is governed by the following legislation:

- the Electricity Act (Cap. 89A)
- the Electricity (Electrical Installations) Regulations and
- the Electricity (Electrical Workers) Regulations.

To achieve the objective of ensuring safe use of electricity, EMA has implemented two licensing "schemes" under the legislation, viz. licensing of "**competent persons**" as licensed electrical workers and licensing of "**electrical installations**".

1) Licensing of Electrical Installations in Non-Domestic Premises

The objective of the licensing scheme is to ensure that the owners (consumers) of the electrical installations take the necessary measures to have their electrical wiring and equipment inspected regularly and take action to remove any potential defects detected before they become a risk to safety. The requirements for safety inspection are as shown in Table below. To-date, a total of 32,000 electrical installations are licensed. There has been no electrical accident in the normal operation of these licensed electrical installations in the last 10 years.

Type of electrical installation	Inspection frequency
Condominiums and multi-tenanted buildings	At least once in six months
Temporary electrical installations at construction work sites	At least once a month
Temporary electrical installations for festive lighting and trade-fairs	Daily
Other than above	Annually before renewal of the licence

2) Licensing of electrical workers

EMA licenses "**competent persons**" to provide electrical services for consumers. The "scheme" ensures that licensed electrical workers are competent to carry out electrical work. In Singapore, only licensed electrical workers are allowed to carry out electrical works, viz. design, installation, repair, inspection, testing and commissioning of an electrical installation. There are about 4,900 licensed electrical workers of various classes at present.

Measures to enhance Electrical Safety

In enforcing the safety regulations under the legislations, EMA has, in collaboration with other government agencies, the power companies and the grid operator, taken various measures to promote electrical safety in consumers' premises.

1) Compliance of Safety Regulations and Codes of Practice

All electrical installations shall comply with the relevant Singapore Standards Codes of Practice made mandatory under the Electricity (Electrical Installations) Regulations (see Table below). EMA provides refresher course for licensed electrical workers to update them on the relevant regulations and codes of practice.

All electrical installations	SS CP5
Temporary electrical installations at construction work sites	SS CP88 Part 1
Temporary electrical installations at mini-fairs, trade fairs, decorative lighting and exhibition sites	SS CP88 Part 2

2) Connection of Electricity to Consumers' Electricity Installations

To ensure that every new electrical installation or extension work is safe for connection of electricity supply, the consumer is required to appoint a "competent person" (viz. licensed electrical worker) to carry out the electrical work. The person has to supervise the electrical work and certify the electrical installation safe for use before arranging for the connection of electricity supply to the electrical installation. The electricity supplier, the grid operator or the relevant building's "competent person" responsible for the physical connection of electricity supply will have to carry out safety checks before permitting the connection of electricity supply.

3) Enforcement actions by EMA

EMA carries out regular "spot" checks on consumer's electrical installations to detect and deter any malpractice. The main activities include:

- random inspections on consumer's electrical installations;
- "spot" checks on temporary electrical installations;
- investigation arising from public feedback.

Where necessary, electricity supply to unsafe electrical installations will be disconnected to ensure public safety.

EMA takes action against any person who is found:

- a) offering electrical services to the public without engaging a licensed electrical worker to perform the electrical work; or
- b) performing electrical work without holding a valid electrical worker licence; or
- c) operating or using an electrical installation without possessing a valid licence as required under the regulations.

4) Dialogue with the industry

Dialogue with the industry is an important and effective avenue to disseminate electrical safety requirements and address electrical safety issues. EMA conducts regular dialogue with the professional bodies, the electrical contractors association and the electrical trade association to share with them regulatory and safety hazards matters. EMA also renders assistance to the small business operators and contractors in resolving safety issues on their electrical installations upon request. To enable licensed electrical workers to keep up with the latest technologies and good industrial practices, EMA requires all licensed electrical workers to attend a prescribed



Guirlandes lumineuses

refresher course once every 5 years. In addition, briefing sessions would be held as and when the need arises.

The successful implementation of these measures has substantially reduced unsafe practices and unsafe installations and enhanced public safety.

Electrical Accidents

The number of electrical accidents since 2004 has been low, at less than 0.46 cases per million populations. Most electrical accidents have happened at temporary construction work sites. The number of electrical accidents in residential premises is nearly zero in the last 15 years. There has been no electrical accident in food centres in the last 18 years; and no electrical accident at trade fairs and exhibition sites in the last 8 years.

Challenges

With the evolving of new technologies such as smart grid, distributed generation, renewable energy sources, electric vehicles, etc., new safety and preventive measures will have to be incorporated in the relevant codes of practice and extensive and thorough safety assessment will need to be carried out on electrical installations incorporating such new technologies so that public safety will not be compromised.

Besides participating in international standardization work on new technologies, EMA has also joined Fisuel in mid 2009 to participate in works relating to new technologies and renewable energy sources introduced in consumer premises, with the objective to align our safety standards and codes of practice with the international practices to ensure the safe use of electricity.



In brief

■ *President Arias accompanied by David Latimer and Denis Hannotin paid a visit on 2nd October to Sesko in Helsinki and on the 3rd to Elsäkerhetsverket in Stockholm. In both cases the goal aim was to make presentations of about Fisuel to some a number of stakeholders of in those countries, and to get obtain information on how they were are organised as far as electrical safety is concerned.*

■ ■ *The president of FENELEC M. Youssef Tag-Mouti issued "The call of Casablanca for the setting up of an African Confederation of Electricity" during the conclusions of the conference "Electrification : vecteur de progrès" which was held with the 18 November Elec Expo.*





In Belgium, "For safer electrical installations"

For several years Belgian legislation has been aiming at raising level of safety of older installations to one comparable with new installations.

What effect has this had within industry?

1. Principes

Since January 1983, electrical installations in industry have been required to comply with the requirements of RGIE. This results in a level of safety far higher than that previously existing. This led, understandably, to consideration of the safety of staff working daily, above or in proximity to electrical equipment resulting in the publication of the **Royal Decree of June 2, 2008**.

His Act, provides that regulated facilities should have a level of safety equivalent to that provided by the RGIE.

Some items of plant may certainly be old, but they need not, for that reason only, be considered as worn out or unfit for use. Costly interventions that do not actually add to safety should be avoided.

This Royal Decree therefore focuses on the following:

- The employer carries out a **risk assessment**, and, taking it into account, develops working practices by which staff are protected and thus achieves a level of safety at least equivalent to the minimum requirements provided in the RGIE,
- Electrical installations must be **regularly inspected**
- Staff must have the necessary **competence** when using an electrical system or when working in its vicinity.

This decree by no means seeks to require installations made before 1983 to comply with the RGIE.

It will only be an adaptation, based on a risk assessment, aimed at an equivalence with the spirit and not with the letter of RGIE..

2. Implementation, 5 steps

■ The **first step** (based on the Royal Decree)

1. "Installation which do not meet the requirements of the RGIE". must be carried out, for each electrical installation, by the person in control of it. Vinçotte does not take a part in this operation.

However, if the customer wishes, Vinçotte can help him to accomplish this first phase.

■ **Then**, by mutual agreement, they should:

2. *assess the identified risks and rank them according their priorities;*
3. *identify the rectification measures to be taken (giving priority to the major risks);*
4. *improve preventative and protective measures: put the installation into accordance with the provisions of the Royal Decree as soon as possible;*
5. *perform periodic inspections based on the decree in order to ensure compliance of electrical installation at all times.*

3. The 11 risks listed in Article 5 of the Act

Direct contacts	1°
Indirect contacts	2°
Electrical discharges - Electrical arcs	3°
Earthing and bonding	4°
Accumulation of energy	5°
Overcurrents – circuits at different voltages environments – operation of equipments	6°
Overheating – burns – fire - explosions	7°
Overcurrents	8°
Undervoltages – isolation	9°
Electrical applications carrying out work on electrical equipment	10°
Non-electrical risks – failure or mal-operation of an electrical component control unit or control circuit	11°

4. The 5 parameters listed in Article 6 to be taken into account:

Area of voltages	1
Conventional maximum voltage, absolute and relative	2
Earthing connections	3
External Influences	4
Presence of other electrical ducts or non-electrical services; extraneous conductive parts.	5

(Communicated by AIB)

Dates for your diary

- **Friday 19 March 2010, Paris (France)**
 - Working Group Europe
- **Monday 22 March 2010, Madrid (Spain)**
 - Board of Directors
- **Thursday 20 et friday 21 May 2010, Tokyo (Japan)**
 - Annual General Meeting of Members



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