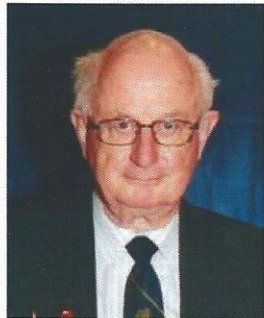




fisuel INFO

FISUEL INFORMATION LETTER

International Federation for the Safety of Electricity Users



Editorial

The Electrical Safety Council (ESC) is a Charity which receives most of its income from trading Ascertiva Group Ltd, of which NICEIC (a FISUEL member) is a part.

The ESC uses its funds to conduct campaigns, at present to

- encourage the use of RCDs in homes,
- investigate the in-service performance of RCDs,
- assist other organisations which are campaigning in electrical safety them

and to make grants for the upgrading of vulnerable people's electrical installations.

The ESC also seeks to obtain and collate data on electrical accidents, thus acting as an Electrical Safety Observatory, one of the principal FISUEL objectives.

Data on fires of electrical origin, and deaths and injuries arising from them are collected by the UK Fire and Rescue Service and are collated and published by the UK government. A summary of them is given below.

Although the UK government continues to collect comprehensive data on workplace accidents, it has not collected data on electrical accidents and injuries occurring in homes since 2002.

The ESC has therefore engaged Ipsos MORI, a leading market research organisation, to carry out surveys of members of the public, from which electrical accident statistics are extrapolated to provide national figures. This method is inherently inaccurate but is better than nothing.

The results of ESC's survey on RCDs are also given below, they present an interesting picture.

David LATIMER
Vice-president

Electrical accident statistics and RCD protection in the UK



To help inform its campaign activities, the Electrical Safety Council (ESC) has been working to establish a robust data set that details the numbers of fires, deaths and injuries in UK homes caused by electricity.

This has not been a simple task as, in the UK, government data on causes of death is not held centrally, and home injury data has not been collected since 2002. And although the UK government does still maintain detailed fire data, the statistics are not published in full.

Fires

The latest available are shown below:

	All accidental domestic fires	Electrical origin			Total	Products	Installations
		Installations Faults	Misuse	Articles too close to heat			
Death	267	23	12	14	49	41	8
Injuries	9,066	1,143	1,831	503	3,477	3,250	227
Fires	43,351	7,986	10,960	2,478	21,424	19,101	2,323

While there will have been a thorough examination of the circumstance in which someone died in a fire, so that we may assume that the "Deaths" figures are correct, the same cannot be said for figures for injuries (which may have been minor) and for fires. The latter may have been attributed to an electrical cause without close investigation, electricity being the "fall back" attribution. **We see that electrical fire deaths are 18%, fire injuries are 38% and fires are 49%.**

Only 8 deaths (16%) were attributed to faults in the installation, 84% of the deaths were from appliances. ESC has an "Electrical Safety of Products Committee" which addresses this trend and the ESC gives **grants** to organisations to assist with projects directed to the prevention of electrical fires.





RCDs

Most dwellings in the UK are supplied by a TN system, so that there is no requirement for an RCD at the origin. The statistics refer to the provision of 30mA RCDs protecting socket circuits.

The ESC has commissioned a survey on the reliability of RCDs in service, analysis of which is on-going. The ESC is also engaged in campaign to publicise the advantages and increased safety afforded by the use of RCD. **At present just under 50% of dwellings have adequate RCD protection.** The requirement for all socket-outlet circuits to be protected by an RCD dates from 2008, so that the figures show a good uptake.

Type of dwelling	Number of dwellings	Number without adequate RCD protection	Percentage
All	26.33 M	12.90 M	49%
Owner occupied	18.65 M	9.70 M	52%
Private rented	3.17 M	1.65 M	52%
Local Authority	2.34 M	0.90 M	38%
Registered Social Landlord	2.20 M	0.70 M	30%

The ESC has been investigating the in-service reliability of 30 mA RCDs provided for additional protection against electric shock, results of which have been published on the website (www.esc.org.uk).



The Energy Commission of Malaysia. Verifications of the installations

The Energy Commission has been given the responsibility for ensuring that the use of electricity and gas through pipelines is safe under the Electricity Supply Act (1990) and Gas Supply Act (1993).



"Competent electrical personnel" is inspecting a protection relay on a Main Switch Board panel.

Among the activities undertaken for this purpose is ensuring that only: – a "competent person" – or any person under the supervision of a "competent person" is allowed to carry out all electrical works* ranging from design and install, test and commission, operate and maintain, and the regular inspection of installations.

In ensuring the safety of electrical appliances, the Energy Commission issues the certification for the importation and manufacture of electrical appliances and gas equipment.

The Energy Commission also investigates electrical accidents and establishes guidelines and statistics, and carries out promotional activities and campaigns to increase the level of security awareness.

In executing the laws and regulations, the Energy Commission acts as an enforcement authority to ensure safe-

* "Installation" here refer to all non-domestic premises receiving supply at voltage 11 kV and above, or premises with standby generator installed to backup utility supply (incase of power blackout).

BRIEFS



Invited by ESFI and CANAME, President Arias went to Mexico city on the 5 August for the 5th Energy Latin America Symposium for making a presentation of FISUEL.

Vice-president Adiouma Dione, who attended as PROQUELEC the World Energy Congress in Montréal from 13 to 17 September paid a visit to the "Régie du Bâtiment du Québec" where he has been received by the President-General Director Marcel Beaudouin.

ARSEL (Cameroon): Mr. Jean-Pierre Kedi was appointed on the 24 June Chief Executive Officer of the Agency in replacement of M. Pierre Ndouga Hell.

RECI: a new chairman, Cormac Madden, in replacement of John Desmond.

ty is not neglected and continuously monitors the compliance Electricity and Gas Supply laws and regulations as well as the integrity of competent persons.

Electrical Contractors

Under the Electricity Regulations 1994, no person shall perform or carry out any electrical work unless he holds a valid "Certificate of Registration" as an Electrical Contractor. There are several categories of contractors have been created in accordance with specific work, namely:

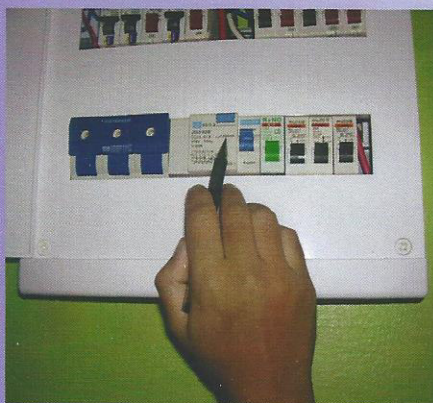
- 1 ■ Electrical Contractor Services (Regulation 71);
- 2 ■ Electrical Contractor (Regulation 75);
- 3 ■ Private Wiring Unit (Regulation 80);
- 4 ■ Contractor for sign board (Regulation 84);
- 5 ■ Repair Contractor (Regulation 88); and
- 6 ■ Switch Board Manufacturers (Regulation 92);
- 7 ■ Gas Contractors (Regulation 103, Gas Supply Regulation 1997).

The Purpose of Registration

- To ensure safety of wiring, electrical installations, gas pipelines installation.
- To ensure
 - only "registered" contractors are carrying out the works,
 - the standards for wiring are being followed.
 - the responsibility of the contractor who carries out the works for

Requirements for Registration Of Contractors

1. Application Form produced by the EC;
2. Business information;
3. Business registration;
4. Information on competent person;
5. Equipment / device testing;
6. Information on business premises; and
7. Other information required by the Energy Commission.



Ensuring a proper tripping current of Residual Current Circuit Breaker (RCCB) installed in a domestic premise. Under Malaysian Electricity Regulation, all final circuit must be protected by a RCCD with tripping current not more than 100mA.

conducting testing and commissioning, and the safe handover to the end user.

Electrical Installations

Under the Electricity Supply Act 1990, "installation" means the whole of any plant or equipment of electricity: under

- one ownership,
- or, where a management is prescribed,
 - the person in charge of the same management, designed for the supply or use, or both, as the case may be.

including prime movers, if any, with all necessary plant, buildings and land in connection therewith, pipe line, supply line and consuming apparatus if any.



Inspecting exploded ring-main-unit which has caused power cut-off to the nearby residents before being replaced with a new unit.

Application for "registration" of electrical installations needs to be made at the Energy Commission Regional Offices. There are nine (9) EC Regional Offices, which will receive and process the applications, according to where the installation is located in their respective regions.

Before the completion of a new installation, the owner thereof shall forward, in duplicate, to the Commission, an "application for registration" in the prescribed form.

The Commission shall cause inspection and tests to be made within the prescribed period and, if the installation satisfies the requirements of this Act, shall issue or cause to be issued a "Certificate of registration" in the prescribed form.

No person shall possess or operate an installation, unless the installation is "registered" on a valid "Certificate of registration".

The Energy Commission may also cancel a "Certificate of registration" of Installation issued to the owner or management of the installation if the installation:

- is no longer required to be used or the installation is found to be unsafe for use,
- or the person to whom the certificate was issued uses it for purposes other than that for which it was intended,



➔ Domestic Installations

By definition domestic installation means an installation in a private dwelling which is not used in any hotel or boarding house or for the purpose of carrying out any business, trade, profession or service. Most private dwelling in Malaysia



were connected with single phase supply at 230V or three phase supply at 400V via a main switch with current carrying capacity at not more than 60A. Application of supply has to be done through a "Registered Electrical Contractor" upon completion of electrical wiring works and testing.

In avoiding danger against leakage current to earth, the law insist all final sub-circuit are being protected by a residual current device having a rated residual operating current not exceeding 100 milliamperes. For an appliances installation in a place where the floor is likely to be wet, such as installing water heater in

a bathroom, protection against earth leakage current shall be by a residual current device having a rated residual operating current not exceeding 10 milliamperes.

This is essential because base on analyses of domestic electrical accidents, most cases could be avoided if residual operating current device trip instantly when when leakage current occurred.

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*The President, the Board of Directors and everyone at FISUEL
send you their best wishes for 2011*

*At the Annual General Meeting, Tokyo, during the debate,
an intervention of Emma Amani Bony (LBTP Sécurel, Abidjan)*

Dates for your diary

■ **March 29th to 1st April, 2011,
Yaounde (Cameroon) :**

FINELEC 2011 :

"Overcome Challenges for access to Electricity in Africa
web site : www.finelec2011.com

■ **Thursday 19 and Friday 20 may 2011,
Madrid (Spain):**

Annual General Meeting of Members



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