

RECI

NEWS

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CER Criteria

The second stage of the Energy (Miscellaneous Provisions) Bill 2006 which will provide for the regulation of the electrical contracting sector by the CER was debated in Dail Eireann on the 6th April 2006. It is hoped that this legislation will be passed into law by the end of May.

Section 4 of the Bill amends the Act of 1999 by inserting new sections to provide that it shall be a function of the CER to establish standards of training of electrical contractors in relation to electrical safety and to regulate the activities of electrical contractors. The CER may appoint one or more Electrical Safety Supervisory Bodies to operate in accordance with criteria and procedures published by the CER. The Bill also creates an offence for non-compliance with specified provisions.

RECI welcomes the Bill which will give the CER the authority to enforce compliance with their criteria in the interest of public safety.

We are also pleased to note that Mr. Eamon Murtagh has been appointed to the position of Gas & Electricity Safety Manager by the CER.

RECI Annual General Meeting

The AGM of RECI will take place at 11.30am on Saturday, 17th June 2006 at Unit 9 KCR Industrial Estate, Kimmage, Dublin 12.

All registered contractors are very welcome to attend the meeting and express their views if they wish.

The notice of the meeting and financial accounts for 2005 will be sent to members 21 days before the meeting.

Additional Smoke Alarms in Houses



Minister, Dick Roche, TD

On 16th March, Dick Roche, TD, Minister for the Environment, Heritage and Local Government announced the making of new Fire Safety Building Regulations and the publication of a new edition of Technical Guidance Document B (TGD B).

TGD B itself covers all areas of Fire Safety, including the subject of smoke alarm selection and installation with the requirements based on the latest edition of BS5839: Part 6: 2004.

Background to BS5839 Changes

BS5839: Part 6 was revised in 2004 to advocate the use of additional smoke and heat alarms in high fire risk areas in dwelling houses in order to give higher levels of protection to the inhabitants of such dwellings. Research had discovered that the majority of dwelling fires started in the kitchen and main living areas of dwelling houses. By locating alarms in these areas such fires would be detected as early as possible, giving the inhabitants of the dwelling as much time as possible to vacate the building. In particular, the research found that some 40% of all fire deaths were caused by fires started in living rooms, and so by placing an alarm in such a location the desired effect was to specifically target such high risk areas. The important point to note is that dwelling fires can escalate incredibly

quickly and therefore giving an early warning of fire conditions can make all the difference of escaping safely from a burning building.

BS5839 also addresses the issue of false alarm reduction with smoke alarms, and therefore advocates the use of heat alarms in kitchen areas because normal cooking fumes would cause a smoke alarm to be activated unnecessarily. A heat alarm responds to excessive heat rather than smoke and therefore will not false alarm in kitchen areas. In a similar manner, BS5839 advocates the use of heat alarms in living rooms if smoke alarms would give rise to false alarms. However, the use of optical smoke alarms in preference to the more highly sensitive ionisation smoke alarms would normally be sufficient to overcome any issues with false alarms in living areas.

BS5839 defines Grades and Categories of smoke alarms, with Grades A-F defining the different types of fire alarm systems, and Categories LD1, LD2 and LD3 defining where smoke and heat alarms should be fitted in different dwellings.

Technical Guidance Document B (Fire Safety) of the new Irish Building Regulations takes the requirements of BS5839: Part 6: 2004 and makes the following statements:—

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Additional smoke alarm required in living room

Smoke Alarms in Houses (cont.)

Fire Detection and Alarm Systems for Dwelling Houses

1.5.5.1 Grades of fire detection and alarm systems (page 55 TGD B) —

“The grade of the system should be at least Grade D as described above (Grade D systems are based on the provision of one or more mains powered smoke alarms each provided with an integral power supply. They may also incorporate one or more mains powered heat alarms with an integral power supply).

Note: Grade E and F systems which are based only on battery or mains powered smoke and heat alarms, are not acceptable for new houses”

1.5.5.2 Fire detection and alarm system types (page 55 TGD B) —

“Dwelling houses should be provided with an LD1 or an LD2 fire detection and alarm system in accordance with BS5839: Part 6: 2004 designed for the protection of life”.

“An LD2 system incorporates suitably located and interconnected detectors in

all circulation areas that form part of the escape route and in all rooms or areas, such as kitchens and living rooms, that present a high fire risk. Heat detectors should be provided in kitchens”

“Dwelling houses with up to three storeys above ground level should have at least an LD2 system”

What Does This Mean ?

What this effectively means is that under the new requirements of TGD B, at least two additional smoke or heat detectors must be installed in dwelling houses, with a heat detector in the kitchen and a smoke or heat detector in the main living room. Under the previous TGD B, the minimum requirement was for smoke detectors to be installed only in the circulation areas of a dwelling house (Category LD3).

In addition, these four alarms must be Grade D (mains powered with battery back up) and interconnected to each other.

Therefore, under the new requirements of TGD B this now means that **four interconnected Grade D smoke or heat alarms must now be installed in an average dwelling house, compared to two under the previous TGD B.**

The new requirements of TGD B will be required in new dwellings commencing on or after 1 June 2006. However, as is the case with all new Building Regulation requirements the operative date is subject to the transitional arrangements to allow the industry time to adjust to the new regime. In this case there is an exemption from the 1 June deadline for new buildings for which planning permission is applied for on or before 31 May 2006 and which are substantially complete by 31 May 2009. This transitional arrangement is designed to avoid delays in the commencement of work on new buildings, at an advanced stage of design and planning.

Contractors should certify their installations using the model certificate form on page 67 of BS5839 Part 6.

Announcements From ETCI Regarding Forthcoming Fourth Edition of ET 101

Announcement No. 1 March 2006 *Harmonization of National Wiring Rules*

The ETCI is the Irish National Committee of CENELEC, the European Committee for Electrotechnical Standardization since its inception in 1973, and of IEC, the International Electrotechnical Commission (the world-wide standards body) since 1976. One of the tasks of CENELEC is the harmonization of national wiring rules in Europe which is the responsibility of its Technical Committee 64. CENELEC bases its work on the equivalent IEC international standards, but there are differences.

Technical Committee No. 2 of ETCI is responsible for producing the National Rules and one of its main activities is participation in the decisions of the corresponding technical committees of CENELEC and IEC.

A new harmonized format for the rules was developed recently, and all European wiring rules, including the forthcoming 4th Edition of the Irish Rules, will be published in the new format.

The ETCI is in the process of issuing the new draft rules for public comment in the form of separate parts and sections throughout 2006, and it is hoped to have the 4th Edition ready by mid 2007.

4th EDITION DRAFTS: Stage 1

The Public enquiry process for the following items is now over: Chapter 41, Chapter 43, Chapter 46, Chapter 61, Sections 704 and 706. The main changes therein are as follows:

Part 1: Minor additions only.

Chapter 41: There are some technical changes, notably the elimination of the 5 second limit for fault-current duration in Table 41A: All circuits up to 32A rating must now trip in 0.4 sec. This affects to some extent the limiting values of fault-loop impedance in Annex 61. Most of the other changes are structural and editorial.

Chapter 43: This introduces new requirements for the protection against damage to “meter tails” which have no short-circuit protection.

Chapter 46: Most of the detailed requirements have been moved to Chapter 53, section 537. The new Chapter 46 contains only basic requirements.

Section 559: Luminaires and lighting installations.

This section has been restructured. The new requirements cover connections to the fixed wiring, and through-wiring of luminaires.

Chapter 61: The values for fault loop impedance in the Annexes of Chapter 61 have been reduced for two reasons: —

1) to take account of temperature rise due to the fault current, as prescribed in the new CENELEC Harmonization Document for Chapter 61.

2) to take account of the shorter tripping time 0.4 sec. (Chapter 41).

An optional extra test for fault-loop impedance, by calculation with measurement of the resistance of the protective conductor, is introduced. This is intended only for checking the design during construction.

Section 704: “Construction and demolition sites”.

The main change concerns switchgear assemblies – all-insulated enclosures are only required where they contain supply authority’s equipment.

Draft Section 702: Swimming pools

The new draft includes small swimming pools and paddling pools. Equipment for use in the interior of pools or basins (Zone 0) intended to be in operation when not occupied by persons (e.g. for cleaning purpose) is now permissible. There are now special requirements for fixed equipment in Zone 1 (702.55.04). A new section covering fountains is also in preparation.

Draft Section 703: Saunas

The main change in this section is the altered zoning. Zone 4 has been deleted and the other zones adjusted accordingly. Zones 1 and 3 now extend to the ceiling.

Announcement No. 2 April 2006 *Drafts for the 4th Edition of ET 101* **Stage 2**

The following drafts are available for public comment:

Section 701: Locations containing a bath or shower —

CENELEC TC64 has at last succeeded on getting agreement on rules for bathrooms after many years of discussion and unsuccessful votes. The latest draft Section 701 implements the CENELEC

decision and it has just been put to public enquiry. It contains some radical changes. Ireland has been allowed to retain some Special National Conditions (SNCs) considered essential for safety e.g. the retention of Zone 3 where mains-voltage sockets and wall switches are prohibited.

There have been major changes in Chapter 701.52: “Wiring systems”. All circuits (lighting included) in the bathroom zones must be protected by a 30 mA RCD. Concealed wiring without a metal covering e.g. armouring or metal conduit must be run, horizontally or vertically, directly to equipment, and moreover, it must be kept at least 50mm from the reverse side of the wall.

With the RCD protection, the rules for appliances and equipment are now less restrictive, e.g. Class I equipment is now permissible as well as Class II equipment in all zones except Zone 0.

Circuits of luminaires and wall switches outside the zones do not require RCD protection, and this measure should be used where possible to avoid unwanted RCD tripping, thus plunging the bathroom into darkness at an inopportune moment.

Section 708: Caravan Parks

This no longer includes caravans, which will be the subject of a separate section 721. In the new draft, each socket-outlet must be protected individually by its own RCD as well as its own MCB (e.g. an RCBO).

Section 709: Marinas

This is a new section, which is similar to 708 in some respects. Each socket-outlet must be protected individually by its own RCD. Minimum clearances for overhead wiring are given.

Section 711: Exhibitions, shows and stands.

This is a new section which deals with indoor and outdoor exhibitions. Section 740 deals with temporary installations such as circuses, etc.

There are special requirements for protection against fire. The entire installation must be protected by 300 mA RCD located at the origin. There are special additional requirements for local bonding.

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Announcements From ETCI Regarding Forthcoming Fourth Edition of ET 101 (cont.)

Section 715: Extra-low voltage lighting installations.

This is a new section. The existing Guide will be revised accordingly. The emphasis is mainly on protection against fire hazard.

Section 740: Temporary installations for structures, amusement devices and booths at fairgrounds, amusement parks and circuses.

This is a new section. The entire installation must be protected at the origin by a 300 mA RCD with time delay. All circuits, normal and emergency lighting included, must be protected by a 30 mA RCD. There are special requirements for the mechanical protection of cable in such situations. Floodlights and festoon lighting are covered.

Consumer's Certificate

It is made quite clear on all ETCI completion certificates that the original of the certificate is to be given by the electrical contractor to his customer after he has carried out the post connection tests. It appears that in some cases registered contractors fail to submit the original of the completion certificate to their customer whether it is a building contractor or the owner of the premises. Not only does this practice raise doubts as to whether the post connection tests were carried out or not but it is a breach of RECI and ETCI Rules. Repeated failure to submit the original certificate to the customer will lead to disciplinary action.

TECHNICAL NEWS

Bonding of Metal Sinks

ETCI Technical Committee No.2 at its meeting on 9th March 2006 made the following interpretation for the application of Rule 544.2.8: Kitchens and Utility Rooms:—

TC/2 DECISION 01/2006

Whereas Rule 544.2.8 requires local equipotential bonding of extraneous conductive parts such as metal sinks and draining boards, a situation may arise where such items are not yet in position when the electrical installation has been completed and is otherwise ready for certification.

In such a situation, a bonding connection shall be provided from a local protective conductor to a termination which is permanently fixed and enclosed in a suitable box located in an appropriate position. A notice should indicate that the box contains a bonding conductor.

Immersion Switch

Contractors are reminded that Clause 555.3.2 of the Wiring Rules requires that the switch for the immersion heater be located outside the airing cupboard or enclosure where practicable. In the vast majority of situations it is perfectly practicable to have the switch outside and therefore contractors would have to have a very good reason not to do so.

Otherwise they will be in breach of the Wiring Rules.