RECI NEWS

SEPTEMBER 2014

JOURNAL OF THE REGISTER OF ELECTRICAL CONTRACTORS OF IRELAND

RECI News

Issuance of Qualified Certifier Number (QC No)

RECI will issue a new QC No only when:

i) the candidate has successfully completed an accredited Verification & Certification (V&C) course, and;

ii) the candidate meets the qualification requirements stated under Clause 1.2.12 of section C of the criteria document CER/13/098:

- having served a recognised apprenticeship as an electrician and having been awarded a National Craft Certificate; or,
- having another suitable electrical award, equivalent to Level 6 or higher on the National Framework of Qualifications.

In order to speed up the process we would ask our contractors to send the candidate's qualifications when applying for a QC No.

Please note that, for candidates who attend an accredited V&C course run by another provider other than RECI, the onus is on the candidates to send us a copy of the C&G 2407 certificate or of the provisional results statement from the provider. If the latter, and when available, the final C&G certificate needs to be sent to RECI. By not sending the certificate to RECI, the QC number may be made invalid.

Notice of Hazard and Emergency Works Notice

CER are planning to make the Notice of Hazards (NoHZ) and Emergency Work Notices (EWN) available to RECs as already in place for the Gas for NoHZs. At the moment only inspectors can use these forms. A notice will be sent to all RECs when the format and conditions of use of the forms have been agreed.

Return of Post Connection Certificates

We notice that a significant number of post connection certificates are not returned to the RECI office. Clause 6.2. of the Common Procedure No 5 (Enforcement) details the time periods during which the certificates should be returned to RECI.

If a certificate is not returned within 45 working days from the date of energisation of the installation by ESB Networks, the self-certification rights of the REC concerned will be withdrawn, causing problems for any other certificate the REC would like to get processed. To avoid such situations, we would ask all RECs to complete the post connection tests and return the certificates as soon as the installation has been energised. If it is not possible, we need to know the reason, which you can enter on the back of the reminder letter we send you after 35 days. Commercial issues are not valid reasons and unless we receive the certificate, we cannot assume that the installation is safe.

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5 top ET101 breaches

The most common breaches found during inspections carried out in the last 12 months are: (in descending order):

1. Incorrect or no main protective device fitted at main supply point.

Rule No	Description
533.3.5	A main overcurrent protective device shall be fitted at the main supply point and shall comply with rule 430.4

2. Dedicated 30mA RCD not fitted to bathroom circuits.

Rule No	Description
701.416.1	In all zones of a room containing a bath or shower, every circuit shall be protected by a dedicated RCD having an operating current not exceeding 30mA, except circuits protected by SELV.

3. Missing isolation for inaccessible socket-outlets in kitchens

Rule No	Description
554.3.5	A socket-outlet that is not readily accessible, e.g. under or behind an appliance or a kitchen unit, shall be provided with a readily accessible means of isolation, e.g. an isolating switch mounted nearby and suitably labelled.

4. Water heating pumps not RCD protected.

Rule No	Description
555.3.2	A circuit supplying auxiliary equipment associated with water services and water systems (e.g. pumps) shall be protected by an RCD having a rated residual operating current not exceeding 30mA.

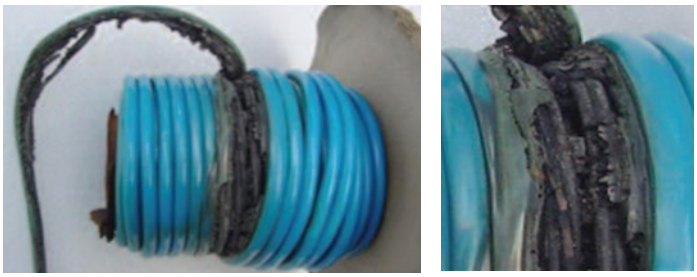
5. Metal sink not bonded.

Rule No	Description
544.2.8	In kitchens and utility rooms extraneous conductive parts shall be connected by supplementary bonding to a local protective conductor. Metal sink draining boards may be bonded either: - directly by a connection to a lug or fixing on the sink or draining board, or - at connected pipe-work where adequate conductivity exists.

Danger Associated with Electrical Cable Reels

Following a number of recent incidents, including electrocutions, where electric cable reels were involved, the HSA wishes to warn people of the dangers that could arise from the misuse or abuse of electric cable reels.

The danger arises principally from
- overloading,
- overheating due to the cable reel being coiled up while powering equipment or
- lack of structural integrity of the cable or reel allowing access to uninsulated live parts of the cable or
- connections



Picture 1: Results of overheating in cable. (This may not be evident until the cable is unreeled).

Overloading & Overheating

When power flows through an electrical cable, some heat is always generated in the cable. This heat generally dissipates into the air. If the reel is left coiled during use, the heat generated in the cable may not dissipate and can start to build up. This in turn can melt the outer insulation of the cable and the insulation on the cores, leading to earth cores and neutral cores becoming electrically live. In this situation a very serious risk of electrocution arises for anyone using an appliance fed through the reel or indeed for anyone touching any piece of metal in the vicinity.

Damage to Cables or Reels

Other issues arise when the insulation on the cable becomes frayed and exposed. This can be caused by trapping or damage to the cable as it goes through doors and windows, or when it is walked or driven on. Internal wires can be exposed and damaged with the risk of electrical shock and electrocution on contact.

Picture 2:
Damaged cable Insulation on cable reel giving rise to risk of electrocution.

In addition, if the reel itself is broken or damaged, people may be electrocuted by touching live connections or other live parts within the reel.

Precautions

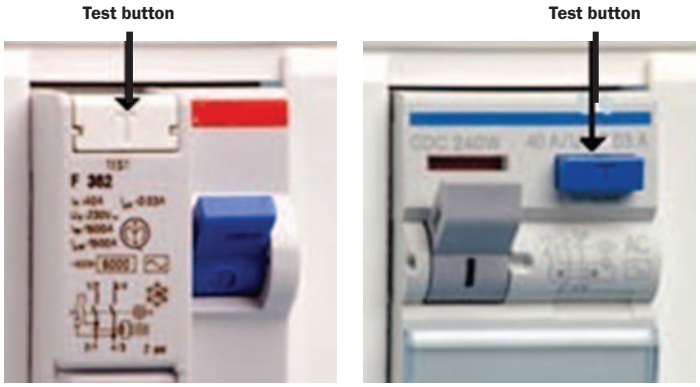
To avoid the risks associated with this hazard, the following precautions should be in place.

Earthing

Ensure your electrical installation is adequately installed and earthed. Look out for scorch marks on electrical fixtures such as sockets and switches or for damaged or frayed cables. If in doubt, a competent electrician should inspect and test the installation to ensure its safety.

RCD Protection.

Ensure the cable reel, and all circuits fed via cable reels, are protected at source by a functioning residual current device (RCD). These RCDs are generally located in your electrical distribution board and should be tested frequently (at least twice per year) by pressing the test button.



Picture 3: Two different types of Residual Current Devices including the test buttons.

Protection against Overload and Overheating.

Ensure that, if any significant load is being fed from the reel, that the reel itself is unwound while safeguarding against any resulting trip or entanglement hazard.

Compliance with Standards.

All reels should comply with the relevant European Standard, "EN 61242:1997+A1:2008 Electrical Accessories. Cable Reels for Household and Similar Purposes" or "EN 61316 Industrial Cable Reels".

In addition they should be marked with a CE mark indicating compliance with the European Low Voltage Directive of 2006 (and any other applicable European directives).

Compliance with the standard ensures that the reel is adequately constructed and is fitted with a thermal cut-out or weak link which will trip the supply from the reel in the event of an overload.

Picture 4:
CE Marked Cable Reel with thermal overload cut-out.

Conclusion

When using cable reels, ensure they
- are only used as intended,
- are physically protected from mechanical damage and,
- have adequate protection against overloading or overheating.

In addition the overall electrical installation must be safe and adequately earthed with the cable reel and anything fed through the reel protected by a residual current device (RCD).

Carbon monoxide alarms

Part J (Heat Producing Appliances) Amendments to the Building regulations came into effect on 1st September 2014. Of particular interest to RECs is section 1.5 of the Technical Guidance Document (below) which deals with carbon monoxide alarms.

1.5 Warning of the release of carbon monoxide in dwellings

1.5.1 Carbon monoxide: To ensure proper combustion and removal of the products of combustion a heat producing appliance should be correctly installed and regularly serviced. The provision of an alarm in accordance with the guidance below should not be regarded as a substitute for this.

1.5.2 Carbon monoxide alarms: Where a new or replacement open-flued or flueless combustion appliance, not designed solely for cooking purposes, is installed in a dwelling, a carbon monoxide (CO) alarm should be provided:

(a) in the room where the appliance is located, and

(b) either inside each bedroom or, within 5 m (16 ft.) of the bedroom door, measured along the path of the corridor.

1.5.2.1 Where a system chimney is being used, with any heat producing appliance and the flue passes within or over a habitable room, (whether encased or not), then a CO alarm should be fitted in the room.

1.5.2.2 Alarm type: A carbon monoxide alarm depends on a sensing element the output of which changes in the presence of carbon monoxide. It has a limited life span and may become obsolete even though the electric circuitry remains functioning which is why an end of life alarm is required.

Carbon monoxide alarms should:

(a) comply with I.S. EN 50291-1:2010/A1:2012; and

(b) incorporate a visual and audible indicator to alert users when the working life of the alarm is due to pass; and

(c) the manufacturer should have third party certification confirming compliance with the standard.

The carbon monoxide alarm may give an end- of-life indication in accordance with the following criteria:

1. powered by a non-replaceable (sealed) battery unit where the battery life does not exceed the life of the sensor;
2. powered by mains electricity(not plug in type) where a timer is included to indicate the end-of life of the unit;
3. powered by a replaceable battery where a timer is included to indicate the end-of-life of the unit.

1.5.3 Location:

1.5.3.1 The carbon monoxide alarm in a room containing an open-flued or flueless combustion appliance should be located –

(a) either on the ceiling at least 300 mm from any wall or, if it is located on a wall, as high up as possible (above any doors and windows) but not within 150 mm of the ceiling; and

(b) between 1000 mm and 3000 mm horizontally from the appliance; or

(c) in accordance with the manufacturer's instruction.

1.5.3.2 Alarms located in bedrooms should be located relatively close to the breathing zone of the occupants.

1.5.3.3 Where a single room serves as living accommodation then the alarm should be positioned as far from the cooking appliances as possible but near to where the person sleeps.

CER News

- CER Consultation Paper CER/14/130 "Regulation of Electrical Contractors with respect to Safety from 2016" was published on 17th June 2014. The CER received 30 responses to the Paper and will publish a Proposed Decision at the end of September 2014. Parties will have a further opportunity to respond to that document and the CER will then publish a final Decision Paper in Q4 of 2014.

  It is intended that the designation process will be carried out in 2015, with the Electrical SSB(s) being designated in mid-2015 and becoming operational in January 2016.

- Restricted/Illegal Electrical Work – there are three cases up before the courts this month for entities either portraying themselves as RECs by using RECI/Safe Electric logos or stating they can carry out Restricted Electrical Work while not being registered or for other entities who carried out Restricted Electrical Work while not being registered.

  You can report illegal electrical work, anonymously if you wish, by filling in the form on the Safe Electric website www.safeelectric.ie or on the RECI website www.reci.ie.

- CER Technical Audits & Inspections continue across both Safety Supervisory Bodies (SSB) whereby CER monitor and inspect, through an approved annual audit and inspection programme, the work of the SSBs (including the work of the SSB Inspectors) to verify that the safety performance metrics reported to the CER are accurate so that this information is then used to identify emergent reporting areas and to recognise any potential hazards.

  This requires an analysis of the procedures of the SSBs designed for the collation and monitoring of defects found on foot of inspections by inspectors and attending onsite inspections with SSB inspectors.

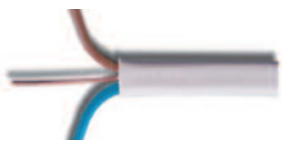
- A new 2014 Safe Electric publicity campaign commenced on 13th August on TV, radio, press and online. Press adverts also highlight that falsely describing oneself as a REC is an offence.

Existing Installations

We are coming across installations, typically rewires or extensions to older properties that are not neutralized. Please ensure that prior to any works starting, that neutralising is confirmed and corrected if required. No new works should start until this is rectified. Main Bonding and main protective conductors should be checked for compliance with ET101 rules and replaced when necessary.

When a distribution board is replaced 'Main Tails' should be at least 16.0mm^2

Please be aware that we are coming across 16.0mm^2 PVC/PVC cable with 6.0mm^2 earth cable, this is unacceptable for 'Mains Tails'. The rules require a minimum of 10mm^2 earth. This cable has appeared on the market over the past number of months. Please check prior to installation.



Verification and Testing Training Courses

Testing and Inspection is often a difficult role for even the most experienced of electricians. The DIT Accredited Inspection and Testing course run by RECI, not only demystifies testing, it also provides you with a qualification that verifies you are competent to undertake test and inspection works. Only an accredited qualification will allow you to certify works. It is an essential skill for anyone undertaking electrical installations.

The aim of this course is to provide a means of assuring the competence of potential Qualified Certifiers and ensure safety in electrical installations. Successful completion of this course fulfils the CER requirement that Qualified Certifiers complete a recognised accredited course (Currently every 5 years). The course runs over 2 days usually Fridays and Saturdays and is currently being brought around the country. We also undertake in-house courses if required. If your existing QC number is expired or soon due to expire please book your place now as numbers are limited, (max of 12 per course).

Booking a Course

Please download a 'TRAINING COURSE ORDER FORM', fill it in and return to the office along with 2 recent passport photos (with the PPS number on the back) and the course fee. Attendee's MUST bring equipment as listed below:

- Current Edition of the ET101 National Wiring Rules including current Amendments.
- Test Equipment (Insulation/Continuity tester, Earth loop Impedance and RCD testers) please ensure batteries are good, and that all test leads and probes are available and in good condition. Test Meters must be calibrated.
- Small hand tools – screwdrivers/pliers.

Full details of training can be found on our website www.reci.ie

A special thank you to Parkmore Electrical who built our test rigs to DIT specification. Parkmore Electrical are panel builders based in Ballinasloe, Co Galway. They embraced the challenge of constructing the test rigs so they are portable and easily transportable and were very accommodating when we made changes.

Date	Venue	Time
Fri 19th Sept – Sat 20th Sept	Station House Hotel, Lr Main St, Letterkenny, Donegal	9.00am – 6.00pm
Fri 26th Sept – Sat 27th Sept	Vienna Woods Hotel, Glanmire, Cork	9.00am – 6.00pm
Fri 26th Sept – Sat 27th Sept	Glenview Hotel, Delgany, Glen of the Downs, Wicklow	9.00am – 6.00pm
Fri 3rd Oct – Sat 4th Oct	City North Hotel, Gormanstown, Meath	9.00am – 6.00pm
Fri 3rd Oct – Sat 4th Oct	Maldron Hotel, Ballindinas, Barntown, Wexford	9.00am – 6.00pm
Fri 10th Oct – Sat 11th Oct	Springhill Hotel, Waterford Rd, Kilkenny	9.00am – 6.00pm
Fri 10th Oct – Sat 11th Oct	Tullamore Court Hotel, Tullamore, Offaly	9.00am – 6.00pm
Fri 17th Oct – Sat 18th Oct	West County Hotel, Ennis, Clare	9.00am – 6.00pm
Fri 17th Oct – Sat 18th Oct	Ardboyne Hotel, Dublin Road, Navan, Meath	9.00am – 6.00pm
Fri 24th Oct – Sat 25th Oct	Sligo Southern Hotel, Strandhill Rd, Sligo	9.00am – 6.00pm
Fri 7th Nov – Sat 8th Nov	Shearwater Hotel, Marina Point, Ballinasloe, Galway	9.00am – 6.00pm
Fri 7th Nov – Sat 8th Nov	Hotel Minella, Coleville Rd, Clonmel, Tipperary	9.00am – 6.00pm
Fri 14th Nov – Sat 15th Nov	City North Hotel, Gormanstown, Meath	9.00am – 6.00pm
Fri 21st Nov – Sat 22nd Nov	Greenisle Hotel, Newlands Cross, Dublin 22	9.00am – 6.00pm
Fri 28th Nov – Sat 29th Nov	Vienna Woods Hotel, Glanmire, Cork	9.00am – 6.00pm
Fri 28th Nov – Sat 29th Nov	Four Seasons Hotel, Coolshanagh, Monaghan	9.00am – 6.00pm
Fri 5th Dec – Sat 6th Dec	Fairways Hotel, Dublin Road, Dundalk, Louth	9.00am – 6.00pm

If you have any queries please contact the office on 01-4929966 or email training@reci.ie