

RECI

NEWS

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CONTINUING PROFESSIONAL DEVELOPMENT



RECI Chairman, Ivan Hammond (right) presenting a City & Guilds certificate to Inspector David Breen

RECI as an organisation is committed to continual improvement and is aware of the need for ongoing training and development of staff members to assist them in discharging their responsibilities.

RECI inspectors attend electrical and safety training courses from time to time to ensure that they are fully up to date with current developments and best practice in the electrical industry.

Recently the inspectors attended a three day City and Guilds 2391 course on Inspection, Testing and Certification and passed the written and practical examinations. The Chairman, Ivan Hammond who presented the City and Guilds certificates to the inspectors said that RECI are committed to providing opportunities to its staff for further education and training. He complimented the inspectors on their achievement and said that the high standards which RECI maintain depend on the technical competence and hard work of the inspectors.

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Minister Launches CER Criteria

Minister Dermot Ahern T.D. launched the new CER Criteria at a function in the Alexander Hotel on Thursday 23rd September 2004. He said he was delighted to publicly launch this joint initiative between the Commission for Energy Regulation, the Distribution System Operator (ESB Networks) and the Electrical Contracting Industry.

“Working with electricity can be volatile and dangerous if best practice safety and health regimes are not adhered to. With the pace of change in new technologies, the hazards for the electrical contracting industry have grown apace and the need for high standards and quality workmanship in a safe working environment are paramount.

Therefore, the issue of safety in the electrical contracting industry is hugely important. Work began on this issue back in June 2001 and since then, a great deal of time and effort has been put into coming up with a practical and workable approach to the regulation of the electrical contracting industry. This work, which involved lengthy and detailed consultation, has culminated in the launch here today of the Criteria for the issue of a Regulatory License to an Electrical Contracting Licensed Regulatory Body.

Let me outline the background to this important development. In June 2001, the then Department of Public Enterprise



Ivan Hammond, Chairman RECI; with John Egan, Chairman ETCI; Jim Rice, Director RECI; and Sean Dungan, RECI Contractor



Commissioner for Energy Regulation, Tom Reeves with Minister Dermot Ahern

formally wrote to the CER on this issue. The CER was requested to advise on the potential of a role for it in the regulation of the electrical contracting industry and how it could best approach the performance and oversight of such an additional function in the most cost efficient manner.

In response, I am pleased to say that the CER confirmed that it was agreeable in principle to assuming this additional function and initiated work on devising an appropriate scheme as a basis for its advice to me as Minister.

As I have already mentioned, in drawing up its advisory report, the CER undertook a detailed and comprehensive review of the regulation of electrical contractors. This included widespread consultation with the industry, as is well-established practice in regulatory matters. Shortcomings in the system were identified and options to address the deficiencies were considered, taking account of the cost effectiveness, efficiency, and impact on the quality and safety of electrical installations of each option.

Continued overleaf

Minister Launches CER Criteria (cont.)

The CER's report recommended two phases of implementation of the future regulation of the industry: namely, an interim mechanism of voluntary regulation to be underpinned at a later date by legislation.

In March 2002 my predecessor accepted the recommendations of the CER's report in full.

Today sees the introduction of the interim approach proposed by the CER in that report. The key elements of this are that the CER assumes the role of supervisory regulator of the industry, with the DSO assuming responsibility for the day-to-day operation and monitoring of the scheme.

These Criteria form a critical part of this regulatory approach. The approach recognises the diversity of work and skills in the electrical contracting industry while providing the necessary reassurance for customers and the public in respect of the



David McGloughlin, RECI General Manager; with RECI Contractors Liam Whelan and Terry Kelly at the CER launch

safety of electrical installations.

The objective of these Criteria is to ensure that installations on the customer side of the meter are safe, installed, tested, certified and maintained to the correct standards by competent and qualified contractors.

They will address the specific electrical contracting industry requirements and will ensure that the industry is operated in a manner, which meets the highest possible

standards of public safety.

I am delighted that this significant initiative is being taken. It shows a full commitment to workplace health and safety standards, in serving the interests of both the industry and customers. The introduction of the Criteria also paves the way for a positive and constructive permanent statutory solution, which will build on the strengths and well-established roles of the main players.

The next step, to give statutory backing to the regulation of the electrical contracting industry, will be effected by, inter alia, authorising the CER to license self-regulatory bodies within the sector, in line with the approved Criteria set out by the DOS."

The parts of the Criteria which directly effect Registered contractors were described in the last issue of RECI News. You should refer to your inspector or contact the RECI office if any clarification is required. You will receive some further details in the near future.

Interim Completion Certificate For A Fully Completed Part Installation

As part of the CER Criteria procedures ETCI are providing overstamped Industrial/ Commercial completion certificates for interim certification of some installations.

The necessity for this certification arises where supply is required for a section of an electrical installation which in itself is complete, but where additional electrical work is necessary in order to consider the total electrical installation completed. The type of situation which might merit this approach would be a large installation (Min CT metering) where for example the lift or air-conditioning requires commissioning at an earlier stage than the rest of the installation. Note that in addition to the Interim Certificate for a fully completed part installation, sub system certificates must be used for the finished sub-systems where sub-system contractors are employed on the premises.

ETCI interim certificate especially marked for the purpose. When this certificate is submitted to ESB Networks they will energise the main board and have no further involvement. The certificate in question shall be fully completed and furthermore the comment section shall specify the sub circuits that are covered by the certificate and state that all others are locked "off" and under the control of the electrical contractor. It is the responsibility of the electrical contractor to issue the final green certificate directly to RECI within a six month period of issuing the "interim certificate for a fully completed part installation".

These certificates shall only be issued in exceptional circumstances and records will be kept by RECI for the purpose of audit by authorised auditors of the CER and for follow up. RECI are obliged to ensure that this process takes place without fail and that it is not abused.

As contractors will have to issue two industrial completion certificates for these installations RECI will only charge €20 plus VAT for the interim certificate.

Overstamped Interim Certificate

In this situation a registered electrical contractor must apply to RECI to obtain an

Non-Registered Contractors

RECI are aware that registered contractors have been very concerned that the inspection service provided for non-registered contractors can be abused by individuals who may be in receipt of social welfare benefits. In a few cases this concern has led to a refusal, as a protest, to allow RECI carry out its annual routine inspection visit.

We are very conscious of contractor's concerns in this matter and we are pleased that the new CER Criteria make it a requirement that non-registered contractors must be fully qualified and have insurance cover in order to get an inspection for connection of supply by ESB Networks. In our opinion this will eliminate the likelihood of abuse of the system occurring in the future.

RECI has an obligation to the CER and to the public to make sure that it's Rules are complied with and that each registered contractor is inspected on a regular basis.

Electronic Completion Certificates

The electronic completion certificate system is now available to registered contractors. You should note however that the MPRN (Meter Point Reference Number) has to be entered on the electronic certificate in order to submit to ESB. You should be able to get the MPRN for the installation from your customer.

In order to issue Electronic Completion Certificates you have to do the following:

- Advise RECI that you want to use the system by completing the template on our website www.reci.ie. The Notification Option which you select will be the way in which ESB will contact you about the connection.
- We will advise you when your details are entered on the system and you can then log on using your RECI registration number as a user name and password (you must use a capital A in the password). You can change your password for security reasons whenever you want to.
- Next click on "View Account" and enter the value of credits you wish to purchase and submit to RECI. The price of the completion certificate is inclusive of VAT.
- For domestic certificates there is a discount structure depending on the amount of credits you purchase. The discount range is shown. The price of the certificates is the same as the paper certificates.
- You must then send a cheque to RECI or pay by credit card for the amount of credits ordered and quote the reference number shown on the screen.
- RECI will then authorise your credit facility. Now you can issue completion certificates.

A help manual is available on the electronic certificate website www.recierts.ie or you can request a hard copy from the RECI office.

RECI Video Update



An updated version of the popular RECI video on inspection and testing of Electrical Installations is now available price €25. The video incorporates the Third Edition of the National Rules for Electrical Installations ET101; 2002 and there is also a section on Periodic Inspection of existing electrical installations.

The testing of an electrical installation to verify compliance with the National Wiring Rules can be considered as the most important element in an electrical contract. It is at this stage that faults and defects not

previously identified in the course of the visual inspection will be revealed. The importance of effective testing in advance of an installation being put into service cannot be over emphasised, as this may be the one and only opportunity to save a life.

The best way for electricians to make sure that they understand all aspects of inspection and testing is to attend a RECI training course on Verification & Certification. Watching the video is a useful way to refresh the knowledge gained on the course from time to time.

Work Categories Undertaken

We intend to introduce two new work categories in the 2005 edition of the RECI booklet of registered contractors. These are "Periodic Inspections" and "PAT Testing". Contractors who wish to be listed for these categories should inform the RECI office or complete the form below and fax or post to RECI.

I wish to be listed for the following categories in the RECI Directory (in addition to my existing listing).

T Periodic Inspections

Tick
Appropriate
Box

B PAT Testing

Name:

REG No.:

Address:

.....

.....

New Radio Technology For Smoke Alarm Installations

Anyone who's ever installed an interconnected, mains-powered smoke alarm system in homes will know there's a lot of wasted time and trouble involved. Installing such a system is simple, but it's also usually very messy and disruptive to the property.

The real problem is the interconnection wiring. Even just wiring two alarms together can be a real task - and leave a lot of cleaning up to do afterwards.

The temptation has been not to bother - but that's bad for safety. If a fire starts downstairs in the middle of the night, the occupiers - sleeping upstairs behind a closed bedroom door - may simply not hear the alarm sounding downstairs. It could take minutes for the smoke to reach the upstairs landing and trigger the alarm there - minutes that could mean the difference between life and death. Interconnecting smoke alarms means that the moment the downstairs alarm sounds, the upstairs alarm is triggered too. The people upstairs receive the earliest possible warning - and more chance to escape.

What's more, interconnecting smoke alarms is a requirement of BS5839 Part 6 and Building Regulations. Customers, landlords in particular, are eager to meet the standards to avoid potential liability under Duty of Care.

Until now, this has meant interconnecting smoke alarms in a property with hard wiring and all the extra effort and mess that entails. The thankless task of cleaning up may require wallpapering, re-painting, relaying of carpets, for example - all kinds of tasks that don't require your specialist skills - not to mention extensive trunking.

However, that's all about to change.

The smoke alarm industry is now introducing a new generation of mains powered smoke alarms which interconnect by radio signals. No more hard wire interconnects. No more mess and clean-up.

The technology is hardly revolutionary. If you've done any security work chances are you've come across radio interconnected devices already, but it will revolutionise the way we tackle mains powered smoke alarm systems in future.

The technology is based around a smoke alarm base which contains a transceiver. Ionisation, Optical and Heat alarms can then be attached as desired. Each device is independently wired to the nearest ceiling rose. All the devices intended to be on the system are programmed together at the time of installation. With over 16.7 million different codes possible, there's no chance of them being triggered by another system close by.

Now, in the event of one such smoke alarm detecting a fire, it will immediately send out a signal to all other alarms on the system, sounding the alarm throughout the property.

Radio-interconnected systems are ideal for new installations or as a way of extending current systems which are presently interconnected by hard wiring. They can easily be retrofitted into properties where alarms are not currently interconnected, improving tenant safety and the bringing the system up to BS5839 Part 6 requirements.

So the technology is here, it's available and it works. What will it mean to installers?

Firstly, installing mains powered smoke alarm systems is going to be much quicker and simpler in future. The old-fashioned, time-intensive hardwire interconnect will go the way of the dinosaur and radio interconnect will become the norm. The time and cost advantages are just too drastic for anything else to happen.

Those installers handing in a tender which features a new radio-based

system will find themselves very attractively priced compared to those quoting for a hard wired system. The bases cost a little more than hard-wired units but that's easily outweighed by the time saved, let alone the interconnect wiring, trunking etc. You'll be able to eliminate all the costly time now spent physically interconnecting and re-decorating - whether you do the redecorating yourself at present or sub contract.

However, remember that the new technology is likely to vary widely in quality and reliability, especially when the industry realises they have to get into radio or be left behind. Some technologies are likely to be rushed, others compromised to gain price advantage. Just as all smoke alarms are most definitely not the same, so radio products will vary. Always check out the reputation of the product if the choice is down to you. Ask for technical and test results. Ask associates already using radio for their experiences.

Calibration of Test Instruments

Clause 9.1.3 of the CER Criteria require that registered contractors must have their test instruments calibrated in accordance with the manufacturers recommendations. In the absence of such recommendations, the instruments shall be checked for accuracy annually. Records of all calibration/annual checks shall be maintained.

The following Irish companies undertake calibration of electrical test instruments:

- Transtest Ltd, Maynooth, Co Kildare.
Tel: 01 - 601 6260;
www.transtest.com
- Calibration Specialists Ltd, Limerick.
Tel: 061 - 330 333;
www.feasa.ie
- Excel Electrical Ltd, Dublin.
Tel: 01 - 450 0600;
www.excelelectric.ie
- Instrument Technology Ltd,
Dunboyne, Co Meath
Tel: 01 - 801 3770;
www.calibrate.ie

New Training Course — Periodic Inspections

There is a growing demand from insurance companies for reports on the condition of electrical installations in commercial and industrial buildings as well as landlords requesting reports on rented accommodation. RECI are presenting a new course in the autumn training programme which provides guidance on procedures for the inspection, testing and reporting on the condition of existing electrical installations. A feature of the course is how to complete the periodic inspection report form.

Above average knowledge and experience of electrical installations is required by contractors doing periodic inspection, testing and reporting to enable them to safely and accurately assess the condition of the electrical installation. This is especially true when they do not have access to the documents that relate to that installation.

Older installations always have to be assessed for compliance with the latest edition of the Wiring Rules. The periodic inspections report form recognises that older installations may not necessarily comply with the latest Rules, and it lets contractors assign a Code 4 — does not comply with ET101;2002 — to any such observations. This code does not necessarily imply that the installation is unsafe.

Each observation listed in the report must be given a Recommendation Code — 1, 2, 3, or 4 — which should be recorded in the right hand column of the form.

☐ **Recommendation Code 1** means “requires urgent attention”. This is used where an existing or potential danger may put the safety of those using the installation at risk. The recipient of the report should be advised that action should be taken without delay to remedy the deficiency or other appropriate action taken.

☐ **Recommendation Code 2** means “requires improvement”. While those using the installation may not be at immediate risk, remedial action should be taken as soon as possible to bring the safety of the installation to ET101;2002 levels.

☐ **Recommendation Code 3** means “requires further investigation”. This indicates that the inspection has revealed an apparent deficiency that could not, due to the extent or limitations of the inspection, be fully identified.
Recommendation Code 3 items should be investigated as soon as possible.

☐ **Recommendation Code 4** means “does not comply with ET 101;2002”. This indicates a failure to comply with the current safety standards. It is not intended to imply that the installation is unsafe, but that this aspect of the installation could be improved.

Other Courses in the autumn programme are:

- Emergency Lighting;
- PAT Testing;
- Verification & Certification;
- 3rd Edition of the Wiring Rules;
- Planning and Design.

A full list of the dates and venues of the Training Courses can be viewed on the RECI website at www.reci.ie or obtained from the RECI office on 01 – 492 9966.

Audit Process For Compliance With Criteria

EA Technology has been appointed as the independent body who will audit compliance with the CER Criteria.

EA Technology in turn have employed the Irish National Accreditation Board and Powerpoint Engineering to conduct the audits.

In addition to the formal audit of RECI operations it is proposed to perform on-site inspections on 10 jobs certified by RECI contractors as being at pre-connection stage but not yet connected. Five of the jobs are to be audited in conjunction with the RECI inspector and five of the jobs are to be audited independently.

These inspections will take place between November 2004 and February 2005.

MPRN Look Up — Internet

From 30th September 2004 consumers are able to access their MPRN (Meter Point Reference Number) by input of their old ESB account number (ZGC) on the ESB Networks website. However this only applies to existing installations and does not provide MPRN's for premises before connection.

We have been advised that there will be a web based facility to check MPRN's before connection, against site address and vice versa for Electricity Suppliers. This will be available from January 2005. However, because of Data Protection requirements a modified version will be provided for the electrical contracting regulatory bodies. We have not been advised yet when this facility will be available.

In the meantime it should be possible for registered contractors who want to use electronic completion certificates to obtain the MPRN for a new installation from their customer.

Requirements for Public Lighting Connections To ESB Networks

All new public lighting loads in excess of 2kW will be metered.

In all cases — metered or unmetered — an ESB special isolator will be installed to comply with **ESB Networks Connection without Inspection Policy**.

Samples of the new enclosures and the minimum dimensions can be viewed on the RECI website www.reci.ie, just go into “Technical Information” and then click on “Public Lighting Connections”.

TECHNICAL NEWS

by *Keane Harley* B. E., C. Eng, M. I. E. I.
Technical Consultant to RECI



Earthing

The following may be of interest regarding improving earthing and earth electrodes.

1. Burying the earth electrode in bentonite — a clay mined in the USA — which retains moisture. Or in concrete with conductive additive which improves electrode /soil resistivity and enhances earthing.
2. The soil resistivity depends really on the moisture content, the chemical composition and the temperature. Salt should never be used to improve the moisture content of the soil as it is highly corrosive.
3. Where the Earth Loop Impedance of a T System is critical the above measures should help and the earthing should be tested regularly.
4. The deeper the electrode is installed the better as this reduces seasonal fluctuations and the danger from surface work on the soil.
5. Where rod electrodes are used the spacing should be greater than the depth. For horizontal electrodes they should be buried at a depth greater than 1 metre. Preferably, a number of electrodes should be spaced radially around the earthing conductor.

6. To protect against corrosion the earthing conductor to the earth electrode should be sleeved with a PVC sleeve for a distance of 0.3 metre above and below ground.
7. Aluminium is not regarded as a suitable earthing metal and certainly aluminium should never be buried in or in contact with cement.

Insurance Update

In line with the pledge given in December 2003 by brokers Arachas, to reduce insurance costs, they report average savings of 25% being delivered to registered contractors throughout 2004.

In addition there are now guarantees in place that these rating reductions will, at the very least, be maintained until 2006, delivering certainty to contractors in the area of insurance costs.

For their part the Hibernian Insurance Company have committed to provide RECI contractors with the best value for money and the most competitive pricing in the

market on a cover for cover basis.

Terry Dinnigen of Hibernian has highlighted the long term partnership and overall improvement in the claims environment as critical factors behind these moves. He said, “We have seen insurance schemes come and go before — promising great things in the short term but failing to deliver. This is a marathon not the 100 meter dash.”

The Hibernian scheme has provided registered contractors with competitive, quality and sustainable insurance cover over the past 12 years.