

**BCA – Technical Newsletter – Issue No. 43
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BCA Member Companies only

1 Construction Products Regulation (CPR)

In accordance with Council's decision, a short draft public announcement has been prepared relating to cables and CPR. It is purely informative and contains no recommendations. It has been circulated as C 3666, and may be used by any member of BCA for their own purposes. Council will be asked to endorse a public release to a wider audience, the electrical press.

The fuller, members-only, resumé (C 3660) will be kept under review, and updated as appropriate.

Since the previous report, the administrative amendment to EN 50575, which is the crucial "product standard" for Reaction to Fire of cables under CPR, has been fully approved and published by CENELEC. In addition EC has raised no objections, and so the Date of Applicability (DoA) of 1st July 2016 remains in place.

At Europacable level, attention is turning away from the pure technical work towards communication and implementation. An updated FAQ is imminent, and a "user manual" is under development. The manual will be private to ECBL members and National Associations, and should provide evidence and argumentation that can be used in support of low fire hazard cables under CPR.

2 Low Voltage Directive and "Blue book"

The re-cast Low Voltage Directive came into force on 20th April 2016. As a Directive it must be enacted locally, in the UK's case as a revision of the Electrical Equipment (Safety) Regulations. This has yet to happen. BIS recently wrote to say:

"Unfortunately the Regulations transposing the new LVD 2016/35/EU are delayed until later this year; the Government is in the process of finalising the most effective and proportionate way to implement the Directive. In the meantime the current UK Regulations Electrical Equipment (Safety) Regulations 1994 regulating the sector will remain in force.

However, we are advising the economic operators that they should, from 20 April, fulfil all their obligations as set out in the revised LVD. The essential safety requirements with which the products must comply have not changed and so products conforming to the current requirements should in any event be compliant with the new requirements in terms of their safety. Nevertheless, products placed on the market after 20 April should have a declaration of conformity against the new Directive. The change from the old Directive to the New Directive does not affect products that are placed on the market prior to the 20 April but products placed on the market from the 20 April should be compliant with the new Directive. I understand that this does present a difficult situation which we are currently working to resolve as quickly as possible."

If any member does experience any difficulties relating to LVD/EE(S)R during this interregnum, they should advise the office immediately.

In the meantime the updated EC "Blue Guide" on the implementation of EU product rules (Edition 8; April 2016) has been issued. See

<http://ec.europa.eu/DocsRoom/documents/16210>

The guide relates not only to LVD but to all New Approach Directives, including EMC, Personal Protective Equipment, Machinery etc. A most useful section is where the guide explains not only the responsibilities of manufacturers, but also of importers and distributors.

3 Europacable reorganisation – Implications for technical work

The re-organisation of ECBL is being driven by market-oriented considerations, not technical ones.

The existing structure of the technical work, via dedicated TCs and WGs, is oriented towards the IEC and CENELEC standardization structures. These are most unlikely to change in the short or medium term. Thus in the major areas:

- EPC TC looks towards TC 20
- EDC TC looks towards TC 46
- ETC TC looks towards TC 86

The experts who now, and in the future, populate these TCs are dedicated to their own fields of technology and the respective products derived from them. Whilst there are common areas, such as fire testing and also certain material types and tests, which are handled jointly, there is no known proposal for a radical change.

The challenges in the new structure are thus more towards any continuing requirement to report upwards for any major decisions of principle, and how to develop and maintain the necessary expertise. The latter remains an area where both at ECBL level and at UK/BCA level, an influx of new blood is greatly to be desired.

4 Standards convergence

In contrast to the position reported in the last Newsletter (C 3661) with regard to metric and AWG conductor sizes, which remains unresolved, a major thrust in cable standardization for more than 20 years has been to reduce the triumvirate of national/European/International standard to two or even to a single world-wide standard. Whilst any individual example must take account of the pros and cons of this from a business perspective, it can and does greatly reduce the resources required for maintenance of the standards.

As a general rule of thumb:

- Optical fibre cable standards are almost 100% international (IEC);
- Metallic data and coaxial cables are a mixture of European (CENELEC) and international, with virtually no remaining national standards of any significance;
- For HV and EHV cables there is, as outlined in the last Newsletter, a strong reliance on IEC as the only public standards, the key exception still being the land-based AC cables in the range 33-132 kV;
- For LV and MV cables all three levels still apply.

Of the areas still having national or regional standards, a number could, in the medium term, be subject to elimination of close equivalents. Some examples are:

- Simple LV cables, such as flexible cords and PVC conduit wire could migrate to IEC-only;
- Further reductions could be made in respect of material types for LV/MV cables, such that the majority are at least harmonised in Europe;

- Most fire test methods for cables, which already apply across all product sectors and for which the IEC version already applies widely, still has some CENELEC and even BS (BS 6387) variants. Efforts continue to reduce the duplications.

Other examples could be found, but members are asked to recognise the general objective, and to raise any instances where the co-existence of more than one standard for essentially the same purpose is no longer of benefit.

5 LV and MV accessories

In the previous Technical Newsletter (C 3661) we reviewed the current position at HV for both cables and their accessories. At the lower voltages the accessories are distinctly separate. Within BCA the responsibilities go from 1 kV up to 52kV, and include joints, terminations, separable connectors, and their components – resins, heat-shrink sleeving and compression and mechanical connectors. There is also responsibility for interface issues with switchgear, transformers and bushings.

BCA does not look after smaller LV accessories such as cable glands, cleats, ties and the like. These are within BEAMA's responsibility; relevant BCA companies are members.

The present position on standards, by reference to UK publications is:

BS EN 50393 – Covers 1 kV joints etc. Reissued in 2015.

BS 7888-4 – Covers MV joints etc (Part 1 – polymeric; Part 2 – paper). Based on HD 629, for which a new polymeric part is likely to be finished in 2017.

BS 7933 – Covers resins and LV/MV heat shrink sleeving. New harmonized texts are due later in 2016 and will become BS EN 50655.

BS EN 61442 – Test methods for MV accessories, for which the position is stable.

BS EN 61238-1 – LV and MV connectors, for which a very significant revision is due to be finalised in 2017.

Outside the formal standardization work, increasing attention is being given to the development of guidance and best practice publications. Europacable will shortly issue one for MV jointing. BCA's accessory committee has just started to evaluate any need for something similar at 1kV. Both initiatives are in response to known variabilities in the field.

6 Awards

The previous Newsletter reported that some revisions of key UK product standards had almost been completed. The final pair in this sequence, namely the armoured cables in BS 5467 and BS 6724, were published almost coincidentally with the retirement of Mr Colin Reed (Prysmian) whose last major contribution to our standards work had been to oversee these revisions. As well as over 30 years' service on BCA technical groups, Colin was an equally long-serving member of the IEE (now IET/BSI) Wiring Regulations committee. At his final meeting he was presented with a BSI Distinguished Service Award, the IET certificate of merit, and an engraved IET paperweight to mark his length of service. Our great thanks go to Colin for all his work, and we wish him a long and happy retirement.

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Previous Newsletters- Restricted to BCA members only

All back numbers of the Technical Newsletter are available on the restricted (Members-only) section of the BCA website (www.bcauk.org). Please ask Paul Sweet for username and password for the Members-only section if you do not already have them. Please note that the username and password were last updated in February 2016.

- 1 May 2001 (C/2851);
- 2 September 2001 (C/2872);
- 3 February 2002 (C/2910);
- 4 June 2002 (C/2925);
- 5 September 2002 (C/2938);
- 6 March 2003 (C/2974);
- 7 July 2003 (C/3003);
- 8 November 2003 (C/3026);
- 9 March 2004 (C/3039);
- 10 September 2004 (C/3055);
- 11 February 2005 (C/3067);
- 12 May 2005 (C/3094);
- 13 October 2005 (C/3121);
- 14 February 2006 (C/3135);
- 15 May 2006 (C/3160)
- 16 October 2006 (C/3177);
- 17 Special CPD issue –December 2006 (C/3197)
- 18 March 2007 (C/3202)
- 19 June 2007 (C/3220)
- 20 October 2007 (C/3231)
- 21 March 2008 (C/3247)
- 22 May 2008 (C/3269)
- 23 September 2008 (C/3286)
- 24 January 2009 (C/3320)
- 25 June 2009 (C/3352)
- 26 Autumn 2009 (C/3396)
- 27 February 2010 (C/3407)
- 28 April 2010 (C/3420)
- 29 October 2010 (C/3468)
- Special issue – Standards – January 2011 (C/3473)
- 30 April 2011 (C/3480)
- Special issue – EN 50525 – June 2011 (C/3487)
- 31 September 2011 (C/3493)
- 32 December 2011 (C/3497)
- Special issue – IEC 60811 – June 2012 (C/3517)
- 33 September 2012 (C/3528)
- 34 Spring 2013 (C/3540)
- 35 June 2013 (C/3552)
- 36 November 2013 (C/3574)
- 37 Spring 2014 (C/3587)
- 38 Summer 2014 (C/3600)
- 39 February 2015 (C/3619)
- 40 Summer 2015 (C/3635)
- 41 Autumn 2015 (C/3649)
- 42 March 2016 (C/3661)