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AGREEMENT IS REACHED ON CONTENT OF NEW INSTALLATION STANDARDS by Mike Gilmore, for Network Cabling News (November 2008)

The 2008 revisions of EN 50174-1 and EN 50174-2 have been approved by the European national standards bodies and they will be published in all EEA countries in early 2009. In the UK they will be designated BS EN 50174-1:2008 and BS EN 50174-2:2008 and will replace the existing versions of the documents, published in 2000. These standards have major significance for the telecommunications cabling industry, covering "Installation Specification and quality assurance" and "Installation planning and practices inside buildings".

Why are these new standards so important? One answer is their function - primarily they provide a tool for managing the interface between installers and their clients as a mandatory adjunct of BS 6701. Another answer is timing - as the standards will be ratified before the end of this year, it is incumbent on those clients to be referencing them, having understood their contents, NOW! Similarly installers will now be bidding for installation work for 2009 and need to be cognisant of the new standards - in readiness for undertaking those installations.

I frequently hear the cry "why make such a fuss - we know all about installations, who needs standards?" My simple response is to recall the people, both clients and installers, who contact me asking "what do the standards say about ...". They are not asking me because of some innate curiosity but because something has gone wrong, they are in dispute and want to know what they should have done.

If those standards have been correctly listed in the contract then it is difficult to have too much sympathy. However, just because a standard is not explicitly referred to in a contract does not always offer a lifeline. In a court of law, judgement is often based on what a reasonable person would be expected to do - and this is normally based on the available standards. Our national standard for the "installation, operation and maintenance of telecommunications cabling and equipment" is BS 6701:2004 - which mandates compliance with the BS EN 50174 standards. Moreover, installers frequently do not realise that the presence of other standards in a contract can also mandate compliance with the new standards. For example, any client wishing the cabling to be designed in accordance with any of the structured cabling standards in the BS EN 50173 series, has automatically stated that the installations shall conform to EN 50174. That being said, it should be remembered that the EN 50174 series applies to all telecommunications/IT cabling - not just structured cabling.

The new standards are based on the format of BS 6701:2004 and not only introduce substantive changes to the existing requirements and recommendations but also present them in a more structured way. This makes it much easier to define the separate responsibilities for installers and their clients - independent of whether those clients are the end-users or their consultants.

EN 50174-1 effectively creates a "ticklist" of issues to be addressed in an Installation Specification - allowing clients to monitor what their consultants have produced while letting the installers identify weaknesses or lack of clarity in what they are being asked to do. To balance the contractual see-saw, the standard details the requirements for the Quality Plan, produced by the installer, which explains how the specification is to be met. The very words "Quality Plan" send some installers into an apoplectic fit but there really is no need for such a reaction. A Quality Plan in the eyes of EN 50174-1 is just a list of Method Statements - and if installers do not already have basic Method Statements then maybe they are not suitable candidates for the project anyway. One of the more subtle changes in EN 50174-1 is the development of a concept of infrastructure complexity as a means of defining the scale or coverage of specific activities for smaller installations such as domestic premises.

EN 50174-2 has received a massive makeover. Often criticised, even by the standards-makers themselves, for a lack of clear requirements and apparent technical inconsistencies, the structure and content of EN 50174-2:2000 has been

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totally re-worked and re-engineered. EN 50174-2:2008 now contains three principle clauses against which conformance is assessed. The first is entitled "Requirements for planning installations...", the second: "Requirements for installation..." and the third: "Segregation of metallic information technology cabling and mains power cabling". For the world of "copper" cabling the third has been the most hard fought. These three sections represent the general requirements for all installations but there will be additional clauses for "offices", "industrial premises", "homes" and "data centres" which contain modified requirements that are applicable to the particular premises types. The 2008 edition of EN 50174-2 will contain the "offices" and "industrial premises" clauses and a future amendment will contain the other two.

What should not be underestimated is the amount of effort that has been expended in the production of the new standards. This is primarily due to the fact that their use is mandatory from the structured cabling standards. As a result, cabling system suppliers have become heavily engaged to ensure that their own recommended practices are included (or dropped). This is expected to result in simplified training solutions and easier routes to supplier approval.

But there is still work to be done - both in UK standards and by industry. Now that the ENs have been approved, the UK will have to revise the contents of BS 6701 to remove any elements that are duplicated. Preliminary work is now underway within BSI to make these changes - these changes will also require the revision or withdrawal of BIP 0007 which the both the FIA and ECA sponsored. In industry, the detailed changes to EN 50174-1 and EN 50174-2 will be reflected by amendments to the FIA Approved Installers Database (AID) that links directly to the FIA Approved installer Scheme. This provides FIA Approved Installers with a unique advance opportunity to obtain understand and apply full compliance to the new standards. It should not be forgotten that the FIA AID is actually technology-agnostic and those same values may soon be applied to the wider cabling community via the TIA-B.

Biography

As the Technical and Standards Director of the UK Fibreoptic Industry Association, Mike is heavily involved in the development of training and competence standards for the fibre installation industry and sets down policy in this area. In addition he chairs the audit and arbitration committees for the FIA. His book "Fibre optic cabling; theory design and installation practice" published in 1991 remains a reference for both experts and entrants into this field.

Mike also initiated the establishment of the Telecommunications Infrastructure Advisory Board (TIA-B) along with the relevant directors of its other host organisations CMA and ECA-ITEC.

In the UK, Mike is Chairman of TCT7, the BSI Technical Committee responsible for the three panels on telecommunication cabling. He also chairs two of these panels (TCT7/-1 and TCT7/-3) and is Secretary of TCT7/-2. TCT7/-1 and TCT7/-2 act to assist development of European and international standards for the design and installation of telecommunications cabling respectively. TCT7/-2 also manages the implementation of these standards in the UK, where necessary producing supporting national standards.

Mike is involved in CENELEC TC215 - as Convenor of Working Group 1 and Secretary of Working Group 2. These committees are responsible for the development of an integrated series of standards for the design and installation of telecommunications cabling in a range of premises. In 2008 he led the ETSI STF362 on energy efficiency in broadband deployment resulting in the ETSI TS 105174 series documents, allowing Mike to assist in a new TC215 activity covering data centre facilities and infrastructures (monitored in the UK by BSI TCT7/-3).

At international level, Mike is Convenor of the Cabling Implementation Task Group (CITG) within ISO/IEC JTC1 SC25 WG3. This group is responsible for the strategic management of the international standards covering the specification, QA, installation, administration, operation, maintenance and repair of generic cabling. This work supports all the cabling design standards produced by ISO/IEC JTC1 SC25 WG3 including ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24764 and ISO/IEC 24702 for industrial premises produced by ISO/IEC JTC1 SC25 WG3 IPTG (also convened by Mike Gilmore).

Mike is a regular speaker at seminars and conferences in all five continents. He has provided the keynote address and opening presentation in many conferences in the UK, Germany and the Netherlands. His seminars, providing regular updates on the progression of cabling standards are particularly well attended and are operating in the UK and continental Europe.



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