

## Author

### Mike Gilmore

Senior Partner of The Cabling Partnership ([www.it-cabling.com](http://www.it-cabling.com))  
Managing Director of e-Ready Building Limited  
P.O.Box MT65, Leeds, United Kingdom. LS17 8YD.  
e-mail: [mike.gilmore@btinternet.com](mailto:mike.gilmore@btinternet.com)  
Telephone: +44 (0) 113 232 3721, Fax: +44 (0) 113 293 2632

See last page for biographical details



The IT cabling infrastructure  
division of  
e-Ready Building Limited

The IT cabling consultants

e-Ready Building Limited  
Next generation IT infrastructures

## THE LATEST DIRECTIVE – FOR YOUR EYES ONLY

by  
**Mike Gilmore, Technical Director of the FIA  
for Networking+ (October 2006)**

Ones eyes are only too easily drawn away from any document from the “European Parliament and of the Council”: a title relating to “the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents” hardly makes it anymore attractive.

However, the three words “artificial optical radiation” makes anyone involved in the optical fibre industry pay attention. Directive 2006/25/EC, ratified on the 5<sup>th</sup> April 2006 has had no fanfare and further work is required before it becomes statute in each member state - nevertheless it may have significance for users of optical fibre transmission equipment.

This European Directive is the latest in a list of documents covering health and safety risks - but this one deals specifically with optical radiation, due to its effects on the health and safety of workers, in particular damage to the eyes and to the skin. The Directive covers the wavelength range 100 nm - 1 mm. Optical fibre communications fall nicely inside this range, operating in the IRA and IRB bands (780nm - 3000 nm).

The primary objective of the Directive is to establish limits and responsibilities for ensuring that they are not exceeded. Unsurprisingly, the responsibilities fall on employers - including both organisations that install and use optical fibre communications systems.

Before everyone starts panicking - it may be worthwhile reminding ourselves of the existing standards. There are two main standards: BS EN 60825-1 and BS EN 60825-2 and they have been around for years. The first defines the Class of optical devices – if you use optical fibre transmission or test equipment will be familiar with the little labels that confirm the Class of the device – normally Class 1 (essentially safe in all foreseeable circumstances). The second is more directly relevant to installers and users of communication systems. BS EN 60825-2 discusses the hazards generated by the connection of equipment of a given Class to optical fibre cabling - and the requirements necessary to control them.

Unfortunately, few professionals know about BS EN 60825-2. To address this shortfall, the FIA produced TSD-2000-5-1 (November 2001). Customers are required to define the hazard classification of their sites based on the equipment to be installed - which in turn defines how installers should label the ports, panels and cabinets. Without this action no professional audit of an installation can be “signed off” - since it is as bad to over-label as it to under-label the hazard. If customers wish to use more powerful equipment, they may have to re-classify the hazard in that area and re-label accordingly. This system requires the customer to have knowledge of, i.e. to record, the safety Class of all the optical equipment on their premises.

It is unlikely that the Directive will require more than this - at least for our sector of industry. Unfortunately most customers do not follow these simple rules. So if little else is achieved, maybe the Directive will act as a wake-up call to customers and their consultants.

FIA members have free access to all FIA Technical Support Documents. If any readers wish to obtain a copy of the TSD-2000-5-1, please contact the FIA Secretariat ([jane@fiasec.demon.co.uk](mailto:jane@fiasec.demon.co.uk)) or the author.

The Cabling Partnership  
P. O. Box MT 65, LEEDS, West Yorkshire, LS17 8YD, England  
Telephone: +44 (0) 113 232 3721 Fax: +44 (0) 113 293 2632

The Cabling Partnership is a division of e-Ready Building Limited  
Company Registration No. 4432595 Registered Office - Emery House, 192 Heaton Moor Road, Stockport, Cheshire, SK4 4DU.

## 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.

In the UK, Mike is Chairman of TCT/7, the BSI technical committee responsible for the three panels on telecommunication cabling. He also chairs two of these panels (TCT7/-/1 and TCT7/-/3). TCT7/-/1 acts to assist development of European and international standards for telecommunications cabling. TCT7/-/3 manages the implementation of European standards and others in the UK.

At the European level Mike is Convenor of CENELEC TC215 Working Group 1, the group that controls the development of European standards for the design and installation of telecommunications cabling. In the international arena Mike is Convenor of ISO/IEC JTC1 SC25 WG3 IPTG, a standards committee working on generic cabling for industrial premises (ISO/IEC 24702).

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.



The Cabling Partnership  
P. O. Box MT 65, LEEDS, West Yorkshire, LS17 8YD, England  
Telephone: +44 (0) 113 232 3721 Fax: +44 (0) 113 293 2632

The Cabling Partnership is a division of e-Ready Building Limited  
Company Registration No. 4432595 Registered Office - Emery House, 192 Heaton Moor Road, Stockport, Cheshire, SK4 4DU.