



The Fibreoptic Industry Association

www.fia-online.co.uk

NEWSLETTER

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THE FIBREOPTIC INDUSTRY ASSOCIATION

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A warm welcome to the following NEW MEMBERS

Corporate

- 603 - PR POWER INSTALLATIONS LTD.
- 602 - FIBRE SOLUTIONS LTD.
- 601 - TOTAL FIBRE OPTIC SOLUTIONS
- 600 - HONEYWELL BUILDING SOLUTIONS
- 599 - NETWORKS CENTRE LTD.
- 598 - 2E2 NETWORKS LTD.
- 597 - CPD TELECOM AND ELECTRICAL SERVICES LTD.
- 596 - TURNKEY FIBRE SOLUTIONS LTD.
- 595 - PARAGON DATA SERVICES

FIA AGM 2006

The Annual General Meeting of the FIA will be held on Friday 8th December 2006 at The Saracens Head Hotel, Towcester, Northants NN12 7BX - starting at 11:30 a.m.

The agenda and associated paperwork has already been sent to all members via post.

The FIA Council and Secretariat would be pleased to take this opportunity to meet members at this annual event. If you have not attended before or are a new member in 2006 you will be particularly welcome.

FIA Approved Installers Scheme

The Mk II Approved Installers Scheme (**FIA AIS**) has got off to a flying start following its launch at the FIA seminars on September 13th/15th. A number of major suppliers have subsequently received private and detailed presentations. Some of the major consulting houses have already expressed interest. This is hardly surprising since the new scheme is specifically targeted at the reduction of risk in installation contracts - both for the installer and their clients.

The FIA has published a special Newsletter covering the changes to the AIS. To download it go to www.fia-online.co.uk/pdf/NL/AISNewsletter-L4883b.pdf. Full details including application forms are to be found on www.fia-online.co.uk/eais01.htm

FIA-online.co.uk

Visit the site and familiarise yourselves with its content - to access member-only pages you will need your membership password.

**BSI and FIA
BIP 0007:2004**

Telecommunication cabling and equipment installations: A guide to requirements and responsibilities

Don't forget – the FIA sponsored the BIP in support of BS 6701:2004 - it's a free download to members.

FIBREOPTIC INDUSTRY ASSOCIATION

The FIA is a Company Limited by Guarantee

Management Council

- Paul Bateson - Chairman
(Optical Test and Calibration)
- Peter Lythgoe - Vice Chairman
(Lythgoes)
- John Marson - Commercial Director
(Twistnet Communications)
- Mike Gilmore - Technical Director and Treasurer
*(The Cabling Partnership
e-Ready Building Limited)*

Industry Sector Directors

- Paul Bateson - Test & Measurement
(Optical Test and Calibration)
- John Colton - Training
(Lucid Optical Services Ltd.)
- Lee Funnell - Qualifications
(Astro Communications Limited)
- Sydney Hogg - Passive Components
(Schneider Electric UK Limited)
- Peter Lythgoe - Installation
(Lythgoes)
- Phil Whitehead - Certification Schemes
(Ortronics)

The latest EU Directive – FOR YOUR EYES ONLY

By Mike Gilmore, FIA Technical Director

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 5th 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 you 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) or the author.

This article was published in Networking+ in October 2006



FIA Seminars - September 2006

The FIA Commercial Awareness Seminars held in London and Leeds on 13th and 15th September respectively were hailed as a great success. The morning session on each day featured the launch of the **Mark. II FIA Approved Installer Scheme**.

Those present got more than they bargained for as an extra item was slotted into the agenda. For those who could not make it the pdf files of the presentations are to be found at www.fia-online.co.uk/epresentations.htm.

FIA Seminars - February 2007

The FIA are planning to hold further techno-commercial seminars in February and March 2007.

Some items are already on the agenda but we need you input to tailor the content to meet our members, i.e. your, needs. Please submit any ideas to Jane Morrison via jane@fiasec.demon.co.uk.

**Are you an FIA member?
Have you got any NEWS?**

This Newsletter is provided as a means of maintaining communication between and with our Members.
It can, therefore, promote the activities of Members to other Members. Articles, product information, news items etc. are always welcome. Please send the information via email (jpg illustrations) to Jane Morrison via jane@fiasec.demon.co.uk

Lucid wins “innovation award”

Lucid Optical Services Ltd are extremely pleased to have been announced winners of the 2006 **'Innovative Business of the Year'** award at the Pride of Cumbria Awards ceremony.

The award was sponsored by the Royal Mail and presented by Sahar Hashemi, following a key note speech telling her inspirational story as a new entrepreneur starting Coffee Republic.

The awards ceremony was hosted by TV newsreader Fiona Armstrong at Carlisle Racecourse, and was an enjoyable event with a drinks reception, lunch, and an afternoon at the races. As winners of this prestigious award for innovation, two of Lucid's directors, John and Annette Colton were presented with a unique, inscribed glass trophy, a winners certificate, cash prize cheque and a bottle of champagne!

John said “This is the first time we have entered the Pride of Cumbria Awards, and it was nice that the judges appreciated the innovations we have brought to our training courses, qualifications and software products. We have worked hard to deliver high quality and innovative products and services for our clients, and now this has been recognised by independent, business judges such that all of our team can take a moment to reflect and be proud of what we have achieved.”

CTTS moves and grows

Long-standing FIA member CTTS (Cable Television Training Services Limited) have relocated their offices to Jubilee Place, Lindum Business Park, Station Road, North Hykeham, Lincolnshire, LN6 3QX.

They have also taken delivery of a substantial amount of test equipment from Exfo, a world leader in optical test and measurement as part of the construction of state-of-the-art fibre transmission networks at its national training centre. The networks include Next Generation SDH and a working FTTH network PON. Engineers and technicians training with CTTS enjoy practical realistic working networks to gain the skills required of today's fibre test engineers.



New facilities at CTTS

FIA Qualification Scheme

October has seen further growth of the FIA Qualification Scheme with 5 more learners gaining FIA awards as detailed below. Welcome to the scheme guys!

Certified Design Engineer

Certified Measurement Engineer

Certified Cabling Specialist

Certified Design Specialist

Certified Cabling Technician



Paul David Sanders



Leslie Robert Lythgoe



Martin James Rawlinson



Andy Sturdy



Shaun Wheatley

OTT boosts technical team

Optical Technology Training Ltd (OTT) have announced the appointment of Lawrence Viljoen, who has just completed his M.Sc. (Physics) on “Field and Laboratory testing of Polarisation Mode Dispersion (PMD) in optical fibres” at the Nelson Mandela Metropolitan University, formerly the University of Port Elizabeth, in South Africa.

This work, and the department at the University, was sponsored by Corning, Abdare Cables and Telkom. During the research for his thesis Lawrence gained much experience in testing PMD of fibres on installed links and studying patterns of behaviour on installed aerial fibre optic cables as well as factory testing of PMD in fibres and cables. These skills and his knowledge of PMD have found a natural home at OTT. Lawrence has already completed his Certified Fibre Characterisation Engineer (CFCE) training at OTT and seen active service on some of OTT's fibre characterisation projects.

Richard Ednay, Technical Director at OTT, said “We're pleased to have Lawrence on board to help us to meet the growing demand for our specialist fibre characterisation services. His expertise will also feed into the training courses we run, such as the world leading ‘Characterisation of Advanced Fibre Infrastructures’ course, as well as supporting our Standards development activities”. Lawrence, who has dual South African and British nationality, added “It's good to be at OTT where I can apply in the real world of fibre optics what I've learned in my seven years of studies— and Skipton's a really nice place to be based”.

Standards Update

Mike Gilmore, FIA Technical Director

I think we all know the saying which is applied to many situations“They’re like buses, you wait for hours and then three come all at once”. It appears to be like that with standards for the design of structured telecommunications cabling. The last major publications in the USA, Europe and internationally were released in 2002. EN 50173-1:2002, published in the UK as BS EN 50173-1, covered the general requirements for structured telecommunications cabling along with the specific requirements for office type premises. This scope hid, to some extent, the developments of design standards for other types of premises that were being considered as part of a complete series of standards.

From January 2007 (although it might be dated 2006 if it squeaks in to this year), we will have four standards in the EN 50173-X series. The current EN 50173-1 will be divided in two: EN 50173-1:2007 will contain general requirements and EN 50173-2 will cover the “office premises-specific” elements. These two documents will contain no specific technical changes as compared to the existing EN 50173-1 - so one might ask why make the split at all - is it simply to make sure that interested parties have to buy two standards rather than one? The short answer is NO - but more of this later.

At the same time two other standards will be published: EN 50173-4 (structured cabling within homes) and EN 50173-5 (structured cabling within data centres). A little later in 2007 we will also see EN 50173-3 for industrial premises. As a result there will be a total of five standards in the EN 50173-X series.

One of the questions that is often asked, even by the standards-writers themselves, is “which standard will I reference”. The answer is simple. If you wish to define the design for structured cabling in offices then you simply refer to EN 50173-2: for data centres you refer to EN 50173-5. So what is EN 50173-1 for then? Put simply, it is an underpinning document that contains a lot of the detailed technical stuff that applies to all premises and which most people do not want to read. For example, the requirement that balanced cabling permanent links shall meet “Class D” performance levels is often quoted in tender documents but few, if any, consultants or their clients actually know (or care about) all the requirements of a Class D link. Installers don’t either - they plug a piece of test equipment into the cabling and run a test. The test equipment has the limits inside and the limits will come from - yes, you guessed it EN 50173-1. Alternatively, someone may ask for a Category 6 cable - that is enough, most people do not want or need to know about the attenuation, NEXT, PSNEXT etc. etc., specifications of such a cable - but if they do they can find it referenced from the new EN 50173-1.

However, EN 50173-1:2007 will contain a great deal of new information relevant to the other premises in the series. For example we will have a new grade of singlemode optical fibre cable (OS2) specified to carry 1 and 10 Gigabit Ethernet over the distances seen in industrial premises - up to 10000 metres compared to those of office sites (2000 metres). Industrial premises have also demanded the inclusion of plastic and plastic clad silica optical fibres within EN 50173-1:2007 - although they are not required for other premises. Homes also have thrown up their own requirements for coaxial cable, connectors and cords which are included in the new EN 50173-1.

So EN 50173-1:2007 should be seen as a cookbook from which the other standards in the series select cabling and component performance levels. This means that EN 50173-1 gets to be a thick tome whereas the premises-specific documents remain tightly focussed. This is certainly good from the readers and specifiers perspective. However, EN 50173-1 has one more trick up its sleeve. It will enable the installation and operational environment of the premises (or cable routes within the premises) to be specified in a way that will allow components to be purchased that are known to operate in that environment. The MICE system (standing for **M**echanical, **I**ngress protection, **C**hemical/Climatic and **E**lectromagnetic) defines the local environment of such areas. This system is applied to all type of premises.

This short article is inadequate to do more than scratch the surface of, and cannot hope to detail any of the features of, the new standards - in fact the only real way to understand what is really going on is to obtain the final draft standards and read them. FIA members are fortunate in that, as FIA members, they are able to view (free of charge) and comment on these, and other, standards and submit their comments to their national body (BSI) via the FIA Technical and Standards Directorate. In this way the FIA membership is able to influence standards in development in a way that few other trade associations can claim to do. As non-FIA members, customers and their consultants are recommended to contact BSI for their copies of the final drafts of EN 50173-1, -2, -4 and -5.

Don’t wait for the bus – get ahead of the game.

This article was published in Networking+ in September 2006

STOP PRESS

EN 50173-1, EN 50173-2, EN 50173-4 and EN 50173-5 have all been approved for publication – without significant change from the 3MV documents listed on the FIA web-site.

They will become British Standards in the next two months.

FIA Web-Site Advertising

The annual contracts covering the sponsorship of the **FIA** web-site ends on 28th February 2007. This year Cablelines (Cablenet Trackmaster Ltd) continued its sponsorship of the site and both CTTS and DMOptics took the opportunity to sponsor individual pages. But there are plenty more opportunities for FIA members to "get their name in lights".

To sponsor a page from 1st March 2007 with a logo of up to 150(H) x 100 (V) pixels costs only £175 + VAT. Full details are shown at <http://www.fia-online.co.uk/esponsor.htm> but to summarise there are just two basic designs of web-page on the **FIA** site - which we call Template and List. The way in which your sponsorship logo is positioned on the page depends upon the page design. The list of available pages is shown on the right. If you want to advertise in this way please contact Jane Morrison at the FIA Secretariat on 01763 273039 or by e-mail at jane@fiasec.demon.co.uk.

Template Pages

Open Pages

About the FIA
Approved Installer Scheme
Audit Scheme
Arbitration Scheme
e-solutions
Insurance Scheme
Jobs in our Industry
Links
Qualification Scheme
Skillsmatch
Standards Forum

List Pages

Open Pages

Articles
Events
FAQs
Newsletters
Presentations of past events
Press Releases
Stolen Equipment Register
Technical Support Documents
White Papers
Members Only Pages
Cost Modelling
Skillsmatch
Standards Forum
Technical Support Documents

FIA Standards Forum

- **documents available for download and comment NOW**

The Standards Forum now offers **FIA** Members the opportunity to comment on the standards in development by the fibre optics and cabling committees in ISO/IEC, IEC, CENELEC and BSI. These cover a range of optical fibre products such as optical fibres, cables and system components together with the design, installation and commissioning standards for cabling.

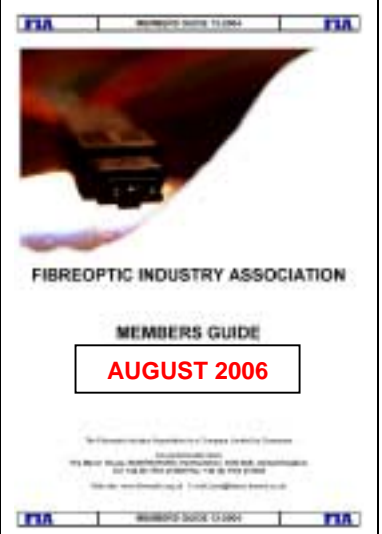
To get involved - go to the members-only area of the **FIA** site area, type in your password, go to Standards Forum and follow the instructions.

FIA Members e-Guide

The fourth electronic version of the **FIA** Members Guide has been available for download via the hyperlink on the home page at www.fia-online.co.uk since August 2006. The e-Guide contains a listing of our member's products and services together with separate sections for FIA Approved Installers and Training Providers. The document is updated on a regular basis, to keep pace with changes in membership and member's details. Please make sure you update your information by advising the FIA Secretariat.

The FIA Secretariat takes this opportunity to thank all those advertisers who have taken space in the e-Guide. These include GCL Ltd., Lythgoes Ltd., Lynx Networks plc, Molex Premise Networks, Optical Test and Calibration Ltd., QA Developments Ltd. and The Cabling Partnership. Advertising space in the e-Guide is available at any time. The advertising contract lasts for twelve months, independent of how many revisions are published during that time. If you want to advertise in this way please contact Jane Morrison at the FIA Secretariat on 01763 273039 or by e-mail at jane@fiasec.demon.co.uk.

The pdf download from the FIA web-site is a print-quality file and contains hyperlinks to all companies that have advertised. It is proposed that electronic copies of the e-Guide will be made available at exhibitions and upon request from the Secretariat.



If you already receive **networking+** magazine you will have seen that the FIA produces a half-page editorial in each issue. In order to save space in this Newsletter we have arranged for all recipients of this e-mail to also receive a free-copy of **networking+**. So - you can keep in touch with the FIA and the other contributors to this broad-based, well balanced networking magazine. If you want to download the text of earlier **FIA** articles go to <http://www.fia-online.co.uk/earticles.htm>.

Forthcoming Events

The Annual General Meeting of the FIA

11:30 a.m. Friday 8th December 2006

The Saracens Head Hotel, Towcester, Northants NN12 7BX.