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The news

The New Year resolution is, as always, to try to keep up with publishing these newsletters. It's not been a good track record recently, but we are always optimistic that we can improve. It also seems that the one newsletter that was compiled last year was never sent out. So it has been attached to this one.

2014 was one of the quietest years for quite some time. Both the number of jobs and the income (in particular) were significantly down compared with recent years. ORLAB is a not-for-profit organisation but it is also not-for loss and that rule was broken in 2014. The most obvious consequence of that was that when Courtney left to go to a continuing job (another complication is that we cannot offer continuing posts) we have not been permitted to replace her. So that familiar voice for you on the phone may now be any one of us. We miss her. It also means that ORLAB could subsidise only one participant in the last ISO working groups meetings in December (Standards Australia does not provide anywhere near full funding).

As foreshadowed in the last newsletter, we now have an FTIR spectrophotometer. This will allow us to measure emissivity for the window glass industry rather than make the calculations based on an assumption. We also have the B/β C/γ goniophotometer capable of luminaires of up to 1800 mm long and wide. That involved some building changes to accommodate the equipment. During 2014 we added testing to the Illuminating Engineering Society of North America Lighting Method LM-79 to our accredited scope of testing. This is the method for testing LED sources that is widely specified. We will be reviewing our scope of testing to make sure that everything we can do is explicitly listed.

In the sunglass and eye protection areas we remain the only laboratory in Australia (accredited or non-accredited) capable of testing to the whole of the sunglass standards AS/NZS 1067, ISO 12312-1, ISO 12311 (that includes the European EN ISO) and the US ANSI Z80.3 and the eye protection standards AS/NZS 1337 (parts 1,2 and 6) the European EN 166 (and all the test methods called up by this standard) and the US ANSI Z87.1. That means "one-stop shopping" for testing to all these standards (and more). We can also work with your notified body or introduce you to a notified body for CE marking.

Technical Note 7

We issue an irregular series of Technical Notes in which we address topics that should be of interest to sectors of our customers. It is partly in an effort to be able to say something once to many rather than many times to one. The Tech Note with this newsletter covers the issue of ready made eye protectors and sunglasses that are intentionally not zero power but not supplied to prescription. We welcome suggestions for other topics.

Research publications

ORLAB continues to be a base for and collaborator in research. The 2014 crop of publications is

Dain SJ Ling BY Colour Vision: Development and Age-Appropriate Tests. In: Paediatric Vision Care: Current Practice and Future Challenges, Edition: 1st, Chapter: 8, Publisher: McGraw-Hill Education (Asia), Editors: Ai-Hong Chen, Susan J Leat, pp.147-174.

Coroneo MT Dain SJ The sun and eyes: sunlight-induced eye disease and its prevention. In Sun, Skin and Health, Edited by Terry Slevin, 10/2014: Chapter 7; CSIRO Publishing. ISBN: 9781486301157

Dain SJ Recognition of simulated cyanosis by color-vision-normal and color-vision-deficient subjects. J Opt Soc Am A 04/2014; 31(4):A303-6.

Chu B-S Ngo TPT Cheng BB Dain SJ, Assessment of the performance of automated focimeters in the measurement of single vision spectacle lenses. Clin Exp Optom 97(4); 364-368

We already have 7 publications slated to come out in 2015.

Standards news

Since the last newsletter, the revision of AS/NZS 1337.0, which is the vocabulary and definitions for eye protection including sunglasses, has been published. This is based on ISO 4007 with some amendments. The amendments are worth comment. Firstly, ISO 4007 sets 380 nm as the long wavelength limit of ultraviolet for sunglasses while leaving the limit for eye protection as either 380 nm or 400 nm. The present limit in AS/NZS 1067 is 400 nm. AS/NZS 1337.0 deletes the sunglass limit of 380 nm and leaves it up to each relevant committee to choose the limit for their product. The arguments over this have been long and the matter will certainly be up for discussion again when Committee CS-053 works on the revision of AS/NZS 1067. The second significant change is the inclusion of a definition of "UV400". This allows the claim of "UV400" to be validated for the first time. The interpretations in use vary from <0.5% transmittance at 400 nm and shorter through to compliance with AS/NZS 1067 (because AS/NZS 1067 has a 400 nm limit for UV). The fact that AS/NZS 1067 could be used in this way was a criticism levelled at the standard. ISO TC172/SC7 (which deals with ophthalmic lenses) failed to agree on a solution. This was not least because it is inconsistent to define 400 nm as not being UV but then use the term "UV400" which implies that it is. The intention is that this definition will solve the immediate problem of an insipid claim, form the basis to validate claims and lead to some resolution of the ISO debate. The truth is that most sunglasses are worthy of that claim anyway.

In the cycle of eye and face protection standard revisions, this now brings us to AS/NZS 1336. This was published in 2014. This is the guide to selection and use of eye protection. While this is of less interest to manufacturers, it is essential if your company deals directly with the companies using the eye protection. It provides the basis to a successful eye safety programme and should be on the bookshelf of every safety professional dealing with eye safety and, as a consequence, in the hand of those of your staff who deal with them.

SF-006 continues to be the mirror committee for ISO TC96/SC6 Eye and face protection. ISO 12312-2 Filters for viewing eclipses is well advanced. ISO 18527-1 Eye and face protection - Eye protection for sports Part 1: Downhill skiing and snow-boarding goggles and ISO 18527-1 Eye and face protection - Eye protection for sports Part 2: Eye protectors for squash and racquetball are at the preliminary work item stage but well advanced and waiting on the test methods working group to develop ISO 18526-1 to 3. These are intended to go to the next stage at the meeting of TC94/SC6 in Paris, 26 June 2015.

Research projects

The two eye protection projects mentioned last year have been proceeding slowly. The paintball project has been held up because the process of getting a special licence for a paintball marker is glacial (submitted June 2014 and still waiting approval). At this stage I have my firearms safety certificate and there is nothing to do but wait. It will then also take 28 days to get the permission to acquire the paintball marker. Thank you to all of those who submitted samples. They will be tested as soon as we can. The project on eye protection in schools is also a slow process. We are evaluating the samples that you submitted, again, thank you for the samples and your support of the project.

One project that should run this year will be an evaluation of what damage the 6mm projectile used for testing will actually do at the various velocities. For instance, what damage will it do at 120 m/s. Is this just eye damage or significant damage to the skin and bones around the eye? Is this a matter for more than just eye protection? The first task is to find a suitable target (dead not alive, of course).

Useful websites

www.standards.org.au
www.saiglobal.com
www.benchmarkcertification.com.au
www.accc.gov.au
www.fairtrading.nsw.gov.au
www.nata.asn.au
www.ncsi.com.au
www.dotars.gov.au
<http://www.vca.gov.uk>
www.consulting.unsw.edu.au
www.nsg.unsw.edu.au

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