WELCOME

I welcome you to the first Update Sheet in what, I hope, will become, a regular series. It is my intention that URANUS will become a medium through which the Radiation Protection Office can promulgate safe working practices with ionising and non-ionising radiations within the University of Liverpool whilst ensuring compliance with the associated requirements of Regulatory Authorities such as the Environment Agency and the Health and Safety Executive.

In addition to our website I hope that URANUS will become another route whereby ideas and information can be disseminated amongst the staff and students working with radiations.

LASER POINTERS

Laser pointers have been used as presentational aids for many years by professional trainers and lecturers, with no reported incidents in the UK. Nevertheless they can still be hazardous in certain situations, particularly if used recklessly.

Lasers are classified depending upon the power of their beams. Class 1 is inherently safe, whereas Class 4 is very hazardous.

The eye is the organ most vulnerable to laser damage. The human ‘blink reflex’ (which normally reduces exposure of the retina to ¼ second) will protect the eye from accidental laser strikes either directly into the eye or via a stray reflection. However, this only applies to laser devices up to Class 2.

Class 2 lasers have low power (less than 1mW) beams in the visible part of the electromagnetic spectrum.

Laser pointers can now be obtained via the web that can have powers up to 5mW. Nowadays devices emitting green beams can be easily obtained. The eye is more sensitive to green light and consequently there is no need to have a beam power greater than 1mW.

Laser pointers that emitted a red beam were only available. These sometimes had powers up to 300mW. These may be Class 3R or 3B devices and represent a significant hazard. They must NOT be used as pointers for teaching purposes.

It is the policy of The University of Liverpool that any laser pointers used by staff and students must only be either Class 1 or Class 2.

See http://www.liv.ac.uk/radiation/pdf/L_Pointers.pdf
Ultra Violet Emissions from Compact Fluorescent Lights

New research by the Health Protection Agency (HPA) has shown that some energy saving Compact Fluorescent Light (CFL) bulbs can emit ultraviolet radiation which can lead to sunburn in some extreme circumstances.

Precautionary advice is that open (single envelope) CFLs (Fig. 1) should not be used where people are in close proximity (i.e. closer than 30 cm or 1 ft) to the bare light bulb for over 1 hour a day. For such situations open CFLs should be replaced by the encapsulated (double envelope) type (Fig. 2). Alternatively, the lamp should be moved so that it is at least 30 cm or 1 ft away.

Encapsulated (double envelope) compact fluorescent light bulbs (see Fig. 2), which look similar to traditional domestic light bulbs, do not emit significant amounts of ultraviolet radiation. The larger long tube “strip lighting” design fluorescent lights, commonly used in offices, workplaces and homes for many years, can also be used on ceilings without any special precautionary measures.

SEMINARS AND FORUMS

SEMINARS

The latest Seminars for Basic Radiation Protection and for Laser Safety were held in October 2008. It is planned that the next occasions on which these will be delivered will be in April 2009.

It is planned to develop a UV Safety Presentation and a Seminar of UV Safety will be held, hopefully, around the same time.

Please log in regularly to the Radiation Protection Office website for information.

FORUM

There is a Forum planned for Departmental Radiation Protection Supervisors and their Deputies. This will be held in room 337 of the Oliver Lodge Laboratory on Wednesday 3rd December.

This is an opportunity for DRPS and Deputy to share ideas and problems, and to participate in the work of the Radiation Protection Office to ensure compliance with Regulation.

Staff

Dr Pete Cole

Pete is the University Radiation Protection Advisor and the University Laser Protection Advisor. His duties include advising Heads of Department/Schools and their delegated staff how compliance with Regulatory bodies can be achieved.

Mr Richard Beckley

Dick is the senior technician in Radiation Protection Office (RPO) and has worked in the RPO for 42 years. He is now undertaking work to enable him to become a certificated RPA.

Mr Richard Clayson

Richie is the second technician in RPO and has just completed his first year. He has already successfully completed a Certificate in Occupational Health & Safety and will shortly commence the NEBOSH Diploma Course.

Mrs Ina Greenwood

Ina is the Administrator with RPO and is responsible for maintenance of personnel records (including radiation doses) of staff working with radiation. She is also the Financial Controller for RPO and assists Pete in controlling the RPO budget.

Please send any comments on the work of Radiation Protection Office to rad.pro@liv.ac.uk