

Newsletter Feb 09

There has been a lot of discussion about withdrawal of 'conventional light bulbs, and possible harmful effects of the low energy replacements.

The HSE have issued a paper on the subject which you may find interesting:

Ultra-violet radiation exposure from general workplace light sources

Previous studies by the National Radiological Protection Board, NRPB, on desktop lighting systems using unfiltered tungsten halogen bulbs indicated that under certain exposure conditions, some systems may emit unacceptably high levels of UVR. Further recent research indicates that compact fluorescent lights (CFLs) also known as low-energy light bulbs present the same issue.

It is generally recommended that all tungsten halogen lamps and CFLs should either be fitted with an appropriate UVR filter, or a bulb with a glass outer envelope (double-walled). There are some extra considerations for the two types of bulb.

Tungsten Halogen

The use of unfiltered desktop lamps should be discouraged if they are used for more than 2 hours per day and are sited within 0.6 m or 2 feet of the user. If a lamp is fitted with a double-walled bulb, but the outer wall is broken, it should not be used. A lot of smaller tungsten halogen bulbs have a filter incorporated. Larger tube lamps, eg those used for uplighting and area illumination, may not have these fitted and should be checked.

CFLs

In a limited number of circumstances UV exposure from CFLs can exceed guideline levels. CFLs should not be used in close proximity (distances of less than 30 cm or one foot) to people for longer than one hour.

The risks from CFLs can be reduced to a safe level by:

- moving the CFL away from people to a safe distance (>30 cm or 1 foot),
- shading the bulb either physically to direct the UV light away from the user or with a filter to stop UV emissions,
or
- using a double-encapsulated bulb.